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## *The Journal of Mental Science.*

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## TRAINING OF ATTENDANTS AND NURSES.

The Medico-Psychological Association having at its Annual General Meeting in 1890 adopted the Report of a Committee appointed by it at the preceding Annual General Meeting, to inquire into the question of the systematic training of attendants, and having also directed its Council to take steps to carry out the scheme recommended therein, the Council issues this notice.

The scheme is to be considered to have come into operation immediately after the Annual General Meeting of July 25, 1890. The first examination at which attendants who have entered asylum service *after that date* will be allowed to present themselves, will be held on the first Monday in November, 1892.

But attendants who entered asylum service *before July, 1890*, will be allowed to present themselves at dates varying with their length of service before November, 1892, provided that they have two years' service at the time of examination, and that "they shall have in the opinion of their Medical Superintendents been afforded and have availed themselves of opportunities of training to an extent contemplated under the first recommendation, even if it be not exactly in conformity with the prescribed regulations, if the Council of the Association approves" (Report 2.h.).

The Council therefore gives notice that if under the latter provision a sufficient number of attendants announce that they are so qualified, and are ready to present themselves for examination, such examinations will be held on the first Mondays of May and November, 1891, and May, 1892.

Superintendents of Asylums are requested to bring this arrangement under the notice of their respective staffs, and are also reminded that the Council has to consider and approve of each individual application for entry to any examination before that of November, 1892. The Council will not only have to do this; but they must also approve the appointment of Assessors (Report 2.f.). It is imperative, therefore, that the names of candidates (accompanied by a statement as to the length of service, and the opportunities of training afforded, vouched by their superintendents), and also the names of the proposed Assessors, should reach the Honorary Secretary not later than February 1st, 1891, so that the Council can take these matters into its consideration at its next meeting in February.

The certificate required by the Report (2.g.) may be procured of the Secretaries later on.





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### PART 1.—ORIGINAL ARTICLES.

*On Present Physiological Theories of Epilepsy, à propos of the doctrines of Dr. Hughlings Jackson.\** By Dr. JULES CHRISTIAN, Physician to the National Hospital, Charenton. (Translated by Dr. T. W. McDOWALL, Medical Superintendent of the County Asylum, Morpeth).

#### I.

There are questions upon which the sagacity and ingenuity of observers have been vainly exercised since the beginning of time. They remain for examination, waiting a definite solution, which may never be discovered. Such is the question of the nature of epilepsy.

The ancients had a very simple idea of this disease; a demon (according to others, a god) disturbed the patient, and produced the disordered movements which terrified those present.

This idea became modified later, and assumed a more scientific form: the *animal spirits* played the part at first attributed to a devil, and inquiry became limited to efforts to discover the causes which could so profoundly disturb the normal exercise of these spirits.

Thus system succeeded system, each offering its explanation, which only lasted as long as the system itself.

I need not disturb all this ancient dust. Nowadays we profess to proceed by scientific methods; to take as a basis of our speculations certain facts, experimentally demonstrated. Therefore I will discuss physiological theories of epilepsy, properly so-called, by beginning with the earliest, that of Marshall Hall.†

\* See *Lumleian Lectures*, 1890.

† See T. Falret, *Théories Physiologiques de l'Epilepsie*; in "Archives général de Médecine," February to May, 1862.

Marshall Hall places the seat of epilepsy in the medulla oblongata. Thoroughly to understand his system, it is necessary to remember that this medulla oblongata, the seat of reflex or excito-motor movements, possesses the power of receiving impressions conveyed by centripetal conductors (the sensory nerves), and also of transferring them to the muscular system, by means of centrifugal conductors (motor nerves). If the medulla oblongata, morbidly excited, experiences a stimulus either from the brain or periphery, the stimulus will be abnormally transmitted to the muscular apparatus, and produce reflex movements, more or less irregular, more or less violent.

Such is, in few words, the theory of Marshall Hall. It presupposes two elements: 1st, the morbid excitability of the medulla oblongata; 2nd, an occasional cause, starting in some part of the nervous system, and bringing this excitability into play.

This fundamental idea is supplemented by secondary explanations of the different phases of the attacks. Marshall Hall considers that the first symptom is spasm of the muscles of the face, larynx, and thorax: that is to say, the muscles supplied by the nerves proceeding directly from the medulla (trigeminus, hypoglossal, spinal and pneumo-gastric); it necessarily follows that the attack begins by *laryngismus*, and *trachelismus*. Therefore we have as an immediate consequence the occlusion of the glottis, spasm of the respiratory muscles, imminent asphyxia, and as a remote result, stasis of the cerebral circulation, leading to loss of consciousness.

It was by this method of reasoning that Marshall Hall came to advise the performing of tracheotomy to cut short epileptic fits and to remove their dangers! I do not know of more lamentable conclusions from a preconceived idea.

Brown Séquard accepted generally Marshall Hall's theory. He also attached most importance to the excito-motor powers of the medulla. He offered a different explanation of the symptoms. He did not admit that the loss of consciousness was due to spasm of the respiratory muscles and consequent stasis of the cerebral circulation. He regarded that as the initial phenomenon, and profiting by the then recent discovery of Claude Bernard, he very ingeniously explained the loss of consciousness and the facial pallor by the sudden contraction of the cerebral vessels, due to stimulation of the vaso-motor fibres supplying them.



According to this hypothesis, the stimulated reflex centre acts at once on the vaso-motor nerves, and the loss of consciousness is brought about, not by congestion of the brain, but by anæmia instantaneously caused by contraction of the vessels. Brown Séquard has developed this theory with remarkable ability in a large number of papers, and has supported it by most ingenious experiments. Accordingly it was generally received until 1870, when the question assumed another aspect.

It was at this time that Fritsch and Hitzig published their first researches upon the motor centres of the brain. They demonstrated that mechanical irritation of certain regions of the cerebral cortex caused convulsions similar to those of epilepsy. This discovery upset all that was hitherto known of the functions of the brain: the most eminent physiologists had unanimously held that the brain was functionally homogeneous, and that stimulation of its surface or deeper parts was never followed by any motor reaction.

The experiments of Ferrier, of King's College, were not long in confirming these discoveries of the German physicians. They were the starting point of a crowd of works and observations,\* of which I can only notice those which directly affect my subject.

It was proved experimentally that certain convulsive affections resembling epilepsy have a cerebral origin, and have their starting-point distinctly localized in a limited region of the cerebral cortex. Thus mechanical irritation (especially electrical) of certain cortical regions are indicated, either by limited attacks (monospasms, hemispasms), or by symmetrical generalized attacks, exactly similar to those observed in the various forms of epilepsy.†

Thus, without depriving the medulla of the function attributed to it by Marshall Hall and Brown Séquard, it is clearly established that this function does not belong to it exclusively, that it alone has not the exclusive power of provoking epileptic convulsions. The question immediately arises: is there a difference between convulsions of cortical

\* François Franck, "*Leçons sur les fonctions motrices du cerveau, et sur l'Épilepsie cérébrale*," Paris, 1887.

† I do not examine the questions whether it is the cerebral cortex itself which is excitable, or whether it is simply traversed by the currents whose action is thus limited to the genuinely excitable nervous elements of the white matter. This is the objection urged by many physiologists, Vulpian among others, against the experiments of Fritsch, Hitzig, Ferrier, and others. From my point of view, this question can only be of secondary importance.

origin and medullary origin, and why sometimes the former, sometimes the latter, are produced?

This is the problem attempted to be solved in the *Lumleian Lectures* of this year by a physiologist well known for his works on cerebral localization—Hughlings Jackson.

According to this author, a recognized authority in cerebral pathology, the central nervous system is composed of three super-imposed levels, representing degrees of evolution more and more advanced; each of these levels includes a set of cerebral convolutions.

The *lower level*, formed by the spinal cord, the medulla, and pons, represents the simplest movements of all parts of the body; there the ponto-bulbar convulsions originate. To this lower level belong also the cerebellum and part of the brain—at least, the posterior region of the latter.

The *middle level*, which is concerned with epileptic convulsions, is constituted by the Rolandic region of the cerebral cortex and by the ganglia of the corpus striatum.

Finally, the *superior level*, formed by the centres of the prefrontal lobes, and consequently including the highest motor centres, presides over epilepsy, properly so called.

These three levels are all sensori-motor, and in each of them convulsions are produced by the same mechanism.

Such is, in few words, the anatomical classification of Hughlings Jackson, to which belongs a corresponding classification of convulsions. Those constitute genuine epilepsy only when they are of cerebral origin—when they originate in the highest level.

But the author goes further, and, having thus classified convulsions according to their origin, he attempts to explain the mechanism of the convulsion, and this is, if I am not mistaken, the important part of the memoir which I am analyzing.\*

We know that Schroeder van der Kolk, wishing to convey an idea of the epileptic attack, was the first to compare the nerve centre to a Leyden jar, the convulsion to the discharge of the jar.

Hughlings Jackson adopts and develops this idea. He starts with this principle—that all nervous phenomena are due to a *nervous discharge*, that is, a *liberation of the energy of the nervous elements*; this discharge occurs in all healthy

\* I believe I have caught the author's meaning; at the same time, I should state that I have seen Hughlings Jackson's work as a translation only.



operations ; when it is produced in an abnormal way there is a *discharge by explosion* (explosive discharge), and, as a result, *convulsion*.

Thus, in epilepsy, convulsion indicates that there exists a certain pathological instability in certain cortical cells, whatever may be the lesion which causes this instability. This may be the direct result of a disorder of nutrition, perhaps due to a stagnation of the nutrient fluids which bathe the cells. An increased nitrogenization of the substance of the nerve-cells would occur ; the cell-substance would become explosive almost like glycerine when one part of its hydrogen is replaced by nitric peroxide.

The epileptic attack is produced in the following way :—The cells of the prefrontal lobes, charged with explosive material, do, on receiving some outside stimulation, immediately discharge, and there is a convulsion. The discharge does not occur simultaneously in the whole prefrontal region ; it begins in some point in one of the corresponding halves of the brain (which is naturally composed of a right and a left half), and one after the other, like a train of gunpowder, the discharge occurs in the different groups of cells by means of the nerve-fibres. Without dwelling further on it, we understand how, according as the discharges are confined to one half of the disturbed level or extend to both halves, we shall have the convulsions limited to one side of the body or generalized. Speaking generally, we may say the more intense the *discharge*, or, if one prefers it, the *explosion*, the more numerous will be the groups of muscles affected.\*

It may be well to remember that Gowers has adopted an almost identical explanation.† According to him, the *muscular spasm*, constituting the most prominent feature of the epileptic attack, ought to be considered as the result of the sudden and violent action of nerve cells, that is to say, the *discharge* of the grey substance. He considers each nerve cell as a magazine of latent energy, similar to a Leyden jar charged with electricity, or, rather, to a *tense spring*. Normally, nerve force is restrained by a power of resistance which prevents it manifesting itself. Let the resist-

\* Having observed how frequently the attacks begin in the hand, Hughlings Jackson formulated the law that the spasm generally begin in the small muscles, represented, as he thinks, by small cells ; these would be less stable than the large.

† Gowers on *Epilepsy and other Chronic Convulsive Diseases*, Trans. by Canier, Paris, 1883.

ance diminish from any cause, immediately the nerve force, till then held in check, is liberated, and manifests itself by convulsions.\*

## II.

It is quite evident that the idea of *discharge, explosion*, in connection with convulsion, must be seductive, for from Schroeder van der Kolk to Hughlings Jackson and Gowers it has been advocated by many eminent observers. Is it possible, however, to regard it otherwise than as a hypothesis? Is it allowable to compare the nerve cell to a Leyden jar? Hitherto everything seems to show that there is no identity between the nervous and the electric fluid; besides, if the nerve cell does become charged with electricity or some analogous fluid, where does it originate?

The hypothesis of an explosive material in the cerebral cells appears to me still more doubtful, for until this *nitrogenous* material is separated—until its existence has been placed beyond doubt by rigorous analysis—I do not think we are justified in attributing to it any part in the mechanism of a convulsion. It appears to me very hard to admit that our groups of cerebral cells should be likened to collections of microscopic grains of explosive powder, or to minute bombs charged with dynamite exploding, without noise it is true, on the least shock.

It should be noticed, and in my opinion this point of view has been too much neglected, that in the convulsions we study we almost exclusively regard voluntary muscles. It will be granted that between the muscular contraction which I determine by my will, and that which is produced in the same muscle without my knowledge, without my intervention, there is not, there cannot be, any essential difference. If, then, there is an explosion in the second case, we must suppose that there is an explosion in voluntary contraction. An explanation is required why we are sometimes capable of regulating as we like (within certain limits) the duration, the intensity, the extent of our muscular contractions, whilst during convulsions all are beyond our will. Does not this alone seem to indicate that the essential phenomenon of our attack is to be found elsewhere?

By way of recapitulation on this point, I will say that if by "*nervous discharge*" we imply the "*simple liberation of*

\* This is the explanation of convulsions following great losses of blood: the consecutive anæmia has the effect of diminishing the normal resistance.



*energy of nerve elements*”—and this is the meaning Spencer gives to it—then we simply express, in language more or less scientific, a fact whose mechanism has completely escaped us. Such words mask our ignorance, offer an explanation which explains nothing.

When we say that the cell of the mucous membrane of the stomach possesses in itself the power of digesting, and that this power is evidenced whenever the special physiological stimulus, that is food, comes in contact with that cell, we state a fact, nothing more; we explain nothing. So with our nerve cell, spinal or cerebral; it also has a functional potentiality. When it is excited physiologically or pathologically, a current is established, which, starting from the cell, traverses the motor nerve, and terminates in muscle; then the muscle contracts immediately.

That is all we know, all we can say; and Molière's physician was as learned as we when he said that “opium makes people sleep because it has a soporific power.” We are no further on now.

But, if it appears to be wise not to discuss further the inmost, the intra-cellular mechanism of a convulsion, there are other points of the theory of epilepsy which we may discuss with more benefit.

Nobody really doubts that epilepsy is a disease of the brain; upon that all are agreed, but no one has been able to determine with any precision the part of the organ affected, nor the nature of the lesion which produces the disease. All the researches of pathological anatomy have hitherto been at variance.\*

Hughlings Jackson examines this part of the problem in an original manner. Dividing the brain into three layers, superimposed, as we have already seen, he views as *epileptic* only those convulsions which arise in the highest, exclusively cerebral, level. It is from the prefrontal centres that epileptic convulsions start.

From the middle level, from centres in the cortex, irradiate *epileptiform* convulsions.

\* Sclerosis of the cornua Ammonis, first pointed out by Meynert, and demonstrated by other observers, has also been denied by many pathologists. It, however, appears to be of real importance in true epilepsy. One of my distinguished colleagues, Dr. Chaslin, physician to the Bicêtre, has found in a certain number of cerebral epileptics alteration of the cornua Ammonis, combined with diffuse sclerosis of the cerebral cortex. These results have been communicated to the Société de Biologie (March, 1890), and will serve as the beginning of a more complete and elaborate work.

I would like to ask the author what difference he considers really exists between an epileptic and an epileptiform convulsion. I will simply say that clinical experience does not justify his conclusion. It is not possible, given a convulsion, to decide, from its origin alone, whether it is or is not epileptic. The reason is very simple.

When we observe an epileptic we see occur indifferently complete attacks with generalized spasms of the muscles, or incomplete attacks, in which one or more groups of muscles are convulsed. It is evident that these convulsions proceed, the first from the higher level, the second from the middle or the inferior level; nevertheless, they are all equally, and for the same reason, *epileptic*. But what gives to a convulsion, I may even say to any symptomatic manifestation, its epileptic character is quite another thing, and this is what remains for me to prove.

The chief objection which I urge, not only against Hughlings Jackson, but against all the authors whose theories I have examined—Marshall Hall, Brown Séquard, and Gowers—is that of seeing in epilepsy only the convulsion.

But *convulsion is not the pathognomonic sign of epilepsy*: it may be absent—it is absent in a great number of cases. Even in the fundamental manifestations of epilepsy the *grand mal*, *vertigo*, and *momentary unconsciousness*, one alone is convulsive, the first. In vertigo, in “absence,” there is no convulsion.

It is therefore absolutely necessary to exclude convulsion in attempting to define epilepsy. The essential sign of the disease is somewhere else; it is in the *loss of consciousness*, sudden and absolute, which accompanies all epileptic manifestations, and without which there is no epilepsy.

Whatever may be the extent and intensity of the convulsions in a patient, whatever muscles may be affected, it will not be epilepsy unless, at the same time, there is loss of consciousness. So also, however slight the muscular spasm may be, it must be considered epileptic, if it occurs during this complete eclipse of the Ego.\*

If this is so; if the essential characteristic of an epileptic attack is its suddenness, its complete, instantaneous abolition of intelligence and sensibility; if the convulsion is nothing more than an accessory, accidental element, is it not evident that the seat of the disease must be looked for, not in the

\* See, on this subject, my book: “Epilepsie, folie épileptique,” Paris, 1890.



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organs which produce movement, but rather in those where intelligence and sensibility have their seat?

Thus we localize epilepsy in the anterior part of the cerebral hemispheres,\* where we are agreed to locate the higher faculties, which are suddenly and instantaneously abolished. According as the epileptic insult remains in this region of the hemispheres, or, on the contrary, as it extends to neighbouring cerebral regions, we observe one or other of these manifestations, types of epilepsy.

In "*absence*" there is no propagation, the only area affected is the region of the hemispheres; the disease ends there.

In the "*grand mal*," on the contrary, the disturbance extends to organs which preside over movements, to the medulla, to psycho-motor centres, etc. The extent of the convulsive phenomena (varieties of the *grand mal*, incomplete attacks, etc.), varies according to the number of the centres secondarily affected.

Finally, in *vertigo*, the phenomena are, as in somnambulism, as in certain conditions of dreaming, or of alcoholic intoxication, as they manifest themselves when we remove the cerebral hemispheres from an animal; it is the locomotor centres of the spinal cord which come into action, and execute, without the control of the brain, the more or less complicated movements they are accustomed to.

This is another proof, we may say in passing, that the regulating centres situate in the brain participate in the sleep in which the organs of intelligence and sensibility are plunged. †

In a word, and I cannot repeat it too often, it is the brain which is primarily and essentially affected, the motor disturbances are only subsequent and secondary.

Shall I attempt to proceed further, and say something of the mechanism of those obscure phenomena? Certainly it would never strike me to attribute this sudden annihilation of all the properties of the cerebral cell to an *explosion*. In it I see rather a kind of shock, like what is produced by a sudden blow on the head, and, indeed, in the symptoms

\* It is evident that my conclusions are identical with those of Hughlings Jackson, who places the origin of epileptic attacks in the prefrontal lobes, but I arrive at this conclusion by different reasoning.

† In the hypothesis of the tense spring of Gowers the sleep of the controlling centres explains the relaxation.

following cranial injuries there is a striking analogy to certain phenomena of epilepsy.\*

But here I will stop; I will carefully avoid attempting to explain this.

There are in our, as in all sciences, a crowd of questions to which we can give but one answer: *we do not know*.† We must content ourselves by observing, studying, comparing. Let us, as little as possible, seek to explain. To anyone asking my opinion as to the approximate cause of epilepsy, I would reply, *I do not know*.

*Ethics as applied to Criminology.* By Dr. ARTHUR MACDONALD, Docent in Applied Ethics (Criminology), Clark University, Worcester, Mass., U.S.A.

The relation of criminality to the other forms of pathological and abnormal humanity is one of degree. If we represent the highest degree, as crime, by  $A^6$ ,  $A^5$ , say, would stand for insane criminality, and  $A^4$  for alcoholism, perhaps,  $A^3$  for pauperism,  $A^2$  for those weak forms of humanity that charity treats more especially, and  $A$  for the idea of wrong in general, particularly in its lightest forms. Thus, crime is the most exaggerated form of wrong; but these forms are all one in essence. A drop of water is as much water as is an ocean.

It is difficult to draw a distinct line between these different forms of wrong. This will become evident from the fact that they are dovetailed one into the other. Thus, when cross-questioning criminals, one often feels that not only are their minds weak and wavering, but that they border close on insanity. The same feeling arises after an examination of confirmed paupers. Here alcoholism is one of the main causes; the individual, on account of his intemperate habits, finds difficulty in obtaining employment, and this forced idleness gradually, from repetition, develops into a confirmed habit. Pauperism may be, in some cases, hereditary, but it is too often overlooked that the children of paupers can acquire all such habits from their parents, and so it can be

\* It is well known that Westphal rendered guinea pigs epileptic by blows on the head with a hammer.

† These ideas have been developed with great ability by an illustrious savant, M. Bertrand, perpetual Secretary of the Academy of Science, in one of his last academical addresses.



carried from one generation to another, without resorting to heredity as a cause, which is too often a name to cover up our ignorance of all the early conditions. The extent to which alcoholism is involved in all forms of humanitarian pathology is well known; it is often indirectly as well as directly the cause of leading the young into crime; the intemperate father makes himself a pest in his own home; the children remain out all night through fear; this habit leads to running away for a longer time. Although not thieves, the children are compelled to steal, or to beg, in order to live; and thus many become confirmed criminals or paupers, or both. The great evil about alcoholism is that it too often injures those around, who are of much more value than the alcoholic himself. It makes itself felt indirectly and directly in our hospitals, insane asylums, orphan asylums, and charitable institutions in general. However low the trade of the prostitute may be, alcohol is her greatest physical enemy.

As just indicated, some of the lesser degrees of abnormal and pathological humanity may be considered under the head of "charitological." These are represented by the different kinds of benevolent institutions, such as asylums for the insane and feeble-minded, for the inebriate; hospitals, homes for the deaf, dumb, and blind, for the aged and orphans, etc.; and institutions for defectives of whatever nature.

It is evident, however, that the term "charitological" may not only be applied to what is pathological or abnormal, but also to that which is physiological or normal. Thus it can refer to institutions of quite a different order, but yet none the less charitable in nature. We refer, of course, to educational institutions, the majority of which are a gift to the public, and especially to those who attend them. It is obvious enough that every student is, in some measure, a charity student from the well-known fact that the tuition money in most cases pays a very small part of the expenses.

Now, no distinct line can be drawn between penal and reformatory institutions, and between reformatory and educational institutions; it is, again, a question of degree. But, in saying this, it is not meant that difference in degree is of little consequence. On the contrary, it is very important to distinguish between penal, reformatory, and educational for practical reasons, as in the classification of

prisoners, not all of whom are criminals. In a sense, all education should be reformatory,

But it may be asked, where can a subject end? It goes without saying that divisions are more or less arbitrary, if we are seeking reality, for things are together, and the more we look into the world the more we find it to be an *organic mechanism of absolute relativity*. Most human beings who are abnormal or defective in any way are much more alike than unlike normal individuals; and hence, in the thorough study of any single individual (microcosmic mechanism), distinct lines are more for convenience. Thus the difficulties of distinguishing between health and disease, sanity and insanity, vegetable and animal, are familiar. Whatever may be said from the educational point of view about abnormal cases is generally true, with few modifications, of the normal. Education and pedagogy are thus to be included to some extent in a comprehensive charitological system.

But although the distinct separation of one wrong from another is not easy, yet the decision as to the highest form of wrong may not be so difficult. This form consists, without doubt, in the act of depriving another of his existence; no act could be more radical; the least that could be said of anyone is that he does not exist. The desire for existence is the deepest instinct in nature—not only in the lower forms of nature, but anthropologically considered, this feeling manifests itself in the highest aspirations of races. In mythology, religion, and theology the great fact is existence hereafter, and in philosophy it has gone so far as pre-existence of the soul. Perhaps the deepest experience we have of non-existence is in the loss of an intimate friend, when we say so truly that part of our existence has gone from us. It is death which makes existence tragic.

Now the degrees of wrong may be expressed in a general way in terms of existence; that is, in depriving another of any of his rights we are taking from him some of his existence, for existence is qualitative as well as temporal; that is, it includes everything that gives to life content.

Thus, in this sense, a man of forty may have had more existence than another at eighty where the former's life has been broader, richer in experience and thought, and more valuable to others.

We may say in general that the existence of a person is beneficial or injurious in that degree in which it is



beneficial or injurious to the community or humanity. This statement is based upon the truism that the whole is more than any of its parts.

*The degrees of wrong, therefore, should depend upon the degree of danger or injury (moral, intellectual, physical, or financial) which a thought, feeling, willing or action, brings to the community.*

This same principle should be applied to degrees of exaggerated wrong or crime.

But, it may be said, should not the degree of freedom or of personal guilt be the main basis for the punishment of the criminal? The force of this objection is evident; historically, the idea of freedom has been the basis of criminal law; it has also been sanctioned by the experience of the race; and although no claim is made of carrying it into practice without serious difficulties in the way of strict justice (difficulties inevitable to any system), yet it has not only been an invaluable service, but a necessity to humanity. This is not only true on criminal lines, but this idea has been the conscious basis of our highest moral ideas.

But at the same time it must be admitted that the exaggeration of the idea of freedom has been one of the main causes of vengeance, which has left its traces in blood, fire, martyrdom, and dungeon; and though at present vengeance seldom takes such extreme forms, yet it is far from extinct. On moral and on biblical grounds, as far as human beings are concerned, vengeance can find little support; an example of its impracticability is the fact that some of the best prison warders never punish a man till some time after the offence, so that there may be no feeling on the part of either that it is an expression of vengeance. The offender is generally reasoned with kindly, but firmly, and told that he must be punished, otherwise the good discipline of the prison could not be maintained; which means that he is punished for the good of others. With few exceptions, a revengeful tone or manner towards the prisoner (save outside of prison) always does harm, for it stirs up similar feelings in the prison, which are often the cause of his bad behaviour and crime, and need no development. Kindness with firmness is the desirable combination. Vengeance produces vengeance.

But, taking the deterministic view of the world, the highest morality is possible. One proof is that some fatalists are rigidly moral. A psychological analysis will show that

persons who are loved and esteemed are those whose very nature is to do good—that is, they would not and could not see a fellow-being suffer; this is, from the necessity of their nature they were from infancy of a kind disposition. We admire the sturdy nature who, by long struggle, has reached the moral goal; but we cannot love him always. He is not always of a kind disposition: this is not a necessity of his nature. As the expression goes, “There are very good people with whom the Lord himself could not live.”

Is it not the spontaneity of a kind act that gives it its beauty?—where there is no calculating, no reasoning, no weighing in the balance, no choice? The grace of morality is in its naturalness. But to go still further: Do we like a good apple more and a bad apple less because they are necessarily good or bad? and, if we admitted that every thought, feeling, willing, and acting of men were as necessary as the law of gravity, would we like honest men less and liars more? True, we might at first modify our estimation of some men, but it would be in the direction of better feeling towards all men.

But, whatever one's personal convictions may be, questions of the freedom of the will and the like must be set aside, not because they are not important, but simply because enough is not known regarding the exact conditions (psychological and physiological) under which we act and think. If we were obliged to withhold action in the case of any criminal, for the reason that we did not know whether the will is free or not (allowing for all misconceptions as to this whole question), the community would be wholly unprotected. If a tiger was loose in the streets the first question would not be whether he was guilty or not. We should imprison the criminal, *first of all, because he is dangerous to the community.*

But if it be asked, how there can be responsibility without freedom? the answer is that there is at least the feeling of responsibility in cases where there is little or no freedom; that is, there is sometimes no proportion between the feeling of responsibility and the amount of responsibility afterwards shown. The main difficulty, however, is that in our present state of knowledge it is impossible to know whether this very feeling of responsibility or of freedom is not itself necessarily caused either psychologically or physiologically, or both. If we admit that we are compelled to believe we are free (as some indeterminists seem to claim), we deny



freedom in this very statement. Another obvious and practical ground for our ignorance as to this point is the fact that, although for generations the best and greatest minds have not failed to give it their attention, yet, up to the present time, the question remains *sub judice*. If we carried out practically the theory of freedom we should have to punish some of the greatest criminals the least, since, from their coarse organization and lack of moral sense, their responsibility would be very small.

A scientific ethics must regard the question of freedom as an unsettled problem. Any ethics would be unethical in taking, as one of its bases, so debateable a question.

Our general, sociological, ethical principle (as above stated) is *that the idea of wrong depends upon the moral, intellectual, physical, and financial danger or injury which a thought, feeling, willing, or acting brings to humanity.*

But accepting this principle, the important question is just what are these thoughts, feelings, willings, and actions, and by what method are they to be determined? The first part of this question, on account of the narrow and limited knowledge at present in those lines, can be answered only very imperfectly, if at all. As to the method, that of science seems to us the only one that can eventually be satisfactory. By the application of the scientific method is meant that all facts, especially psychological (sociological, historical, etc.), physiological, and pathological, must form the basis of investigation. Psychological facts that can be scientifically determined, as affecting humanity, beneficially or not, are comparatively few in number. Physiologically, more facts can be determined as to their effect on humanity. But it is pre-eminently in the field of pathology that definite scientific results can be acquired. As to the difficulty of investigating psycho-ethical effects, it may be said physiological psychology and psycho-physics have not as yet furnished a sufficient number of scientific facts.

By the scientific application of chemistry, clinical and experimental medicine with vivisection, to physiology, many truths of ethical importance to humanity exist. But there is much here to be desired; for example, what is said about questions of diet and ways of living in general is scientifically far from satisfactory. The development of pathology in medicine has been without precedent. Its direct ethical

value to humanity is already very great ; but the outlook into the future is still greater. It is only necessary to mention the discovery of the cholera and tuberculosis germs (a *conditio sine qua non* of their own prevention). Immunity, in the case of the latter, would be one of the greatest benefactions yet known to the race. Medicine can be said to be the study of the future, especially in the scientific and prophylactic sense. It is to experimental medicine that scientific ethics will look for many of its basal facts.

In emphasizing the scientific method as the most important, it is not intended to exclude others. The *à priori* method has been of inestimable value to philosophy, ethics, and theology, and to science itself in the forming of hypotheses and theories, which are often necessary anticipations of truth, to be verified afterwards. The *à priori* method is related to the *à posteriori* as the sails to the ballast of a boat : the more philosophy, the better, provided there are a sufficient number of facts ; otherwise there is danger of upsetting the craft.

The present office of ethics is, as far as the facts will allow, to suggest methods of conduct to follow, and ideals to hold, that will bring humanity into a more moral, physiological, and normal state, enabling each individual to live more in harmony with nature's laws. Such an applied ethics must study especially the phenomena manifested in the different forms of pathological humanity, and draw its conclusions from the facts thus gathered.

But there are many scientists who look with suspicion upon the introduction of philosophical thought and methods into their field. We may call them pure-scientists ; that is to say, those who believe that the term scientific truth should be applied only to that form of truth which can be directly verified by facts accessible to all. Yet from this point of view the arrangement, classification, forming of hypotheses and theories, and drawing philosophical conclusions are not necessarily illegitimate, provided those processes are clearly distinguished from each other and rigidly separated from the facts. Perhaps the study which, more than all others, will contribute towards a scientific ethics is criminology, the subject matter of which touches the popular mind very closely, owing, in a great measure, to the influence of the Press ; and though this has its dangers, yet it is the duty of this, as of every science, to make its

principles and conclusions as clear as possible to the public, since in the end such questions vitally concern them.

Crime can be said, in a certain sense, to be nature's experiment on humanity. If a nerve of a normal organism is cut, the organs in which irregularities are produced are those which the nerve controls. In this way the office of a nerve in the normal state may be discovered. The criminal is, so to speak, the severed-nerve of society, and the study of him is a practical way (though indirect) of studying normal men. And since the criminal is seven-eighths like other men, such a study is, in addition, a direct inquiry into normal humanity.

The relation also of criminology to society and to sociological questions is already intimate, and may in the future become closer. Just what crime is at present depends more upon time, location, race, country, nationality, and even the State in which one resides. But notwithstanding the extreme relativity of the idea of crime, there are some things in our present social life that are questionable. A young girl of independence, but near poverty, tries to earn her own living at three dollars a week, and if, having natural desires for a few comforts and some taste for her personal appearance, she finally, through pressure, oversteps the bound, society, which permits this condition of things, immediately ostracizes her. It borders on criminality that a widow works fifteen hours a day in a room in which she lives, making trousers at ten cents a pair, out of which she and her family must live, until they gradually run down towards death from want of sufficient nutrition, fresh air, and any comfort. It is criminally questionable to leave stoves in cars, so that if the passenger is not seriously injured, but only wedged in, he will have the additional chances of burning to death. It has been a general truth, and in some cases is still, that so many persons must perish by fire before private individuals will furnish fire escapes to protect their own patrons. It is a fact that over five thousand people are killed yearly in the United States at railroad-grade crossings, most of whose lives could have been spared had either the road or the railroad passed either one over the other. But it is said that such improvements would involve an enormous expense; that is, practically, to admit that the extra money required is of more consequence than the five thousand human



lives. And yet, strange as it may seem, if a brutal murderer is to lose his life, and there is the least doubt as to his premeditation, a large part of the community is often aroused into moral excitement, if not indignation, while the innocently-murdered railroad passenger excites little more than a murmur.

There is, perhaps, no subject upon which the public conscience is more tender than the treatment of the criminal.

Psychologically, the explanation is simple, for the public have been educated gradually to feel the misfortune and sufferings of the criminal; it is also easier to realize, since the thought is confined generally to one personality at a time. But if the public could all be eye-witnesses to a few of our most brutal railroad accidents, the consciousness gained might be developed into conscientiousness in the division of their sympathies. But this feeling, however paradoxical, is a sincere, though sometimes morbid expression, of unselfish humanitarianism, for the underlying impulses are of the most ethical order, and over-cultivation is a safer error than under-cultivation. The moral climax of this feeling was reached when the Founder of Christianity was placed between two thieves.

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*The Circulation of the Blood and Lymph in the Cranium during Sleep and Sleeplessness, with Observations on Hypnotics* (Prize Essay). By JOHN CUMMING MACKENZIE, M.B., Assistant Medical Officer, Northumberland County Asylum, Morpeth.

Sir Henry Holland, in his chapter on Sleep, considers its investigation should include causes which prevent as well as those which favour or produce it. In the investigation of sleeplessness we assume the converse of this as true, and advert briefly to what experimental physiologists regard as causes and accompaniments of sleep before engaging on its pathological condition, for the therapeutics of sleeplessness imply a knowledge of both. Disturbances of sleep are so constantly the heralds and associates of mental disease as to make insomnia, more than any other condition, common to all, or pathognomonic. The object of sleep, says Sir Henry Holland, is reparation, and sleep itself repose of sensibility and volition, whose cause is a change of condition of the nervous substance closely related to these functions, probably never to be ascertained by investigation, "yet," he continues, "not the less real as a change on that account."

Among other distinguished physiologists, Michael Foster looks for an explanation of the condition in molecular changes, applying the analogy of the cardiac systole and diastole to the sleeping and waking conditions of the brain. Preyer, however, believes that the presence of lactic acid—a product of protoplasmic activity—tends to produce sleep, for while the reaction of muscular activity, or work, is acid from this formation, that of quiescence or repose is alkaline. In an allied chemical process, Pflüger looks for the causation of sleep in the exhaustion of intra-molecular oxygen. For a muscle will continue to react to stimulation, and give off carbonic acid after its circulation is withdrawn, which, however, must soon be renewed to keep up the irritability; but why the stored-up oxygen should become exhausted, in the presence of its source, the blood, is not clear.

Associating changes in the cerebral circulation with the causation of sleep is historical, for that a form of sleep or stupor is induced by compressing the carotid arteries is a fact to which these vessels probably owe their name (Kussmaul and Tenner). At the threshold of investigation in this direction is the doctrine of the constancy of the cranial contents as formulated probably by Munro Secundus (Edin.). Taken as applied to the circulation, therefore, we adduce evidence bearing on the variability of (1) the absolute, and (2) the relative cranial contents, as the basis of inquiry into any cerebral circulatory change. Dr. Kellie, of Leith, published experiments made to demonstrate the doctrine of Munro. These were on sheep slaughtered in the ordinary way by the butcher, on dogs killed by ligaturing the carotid arteries, and by prussic acid. He concluded that the brain vessels are not emptied by any means of general depletion as vessels elsewhere are, although profuse hæmorrhages drain it “of a sensible portion of its red blood”—its place being taken by serum—“watery effusion within the head,” he says, “being frequently a consequence of great depletion.” These conclusions were apparently interpreted as pointing to the invariableness, in all circumstances, of the amount of blood within the cranium—a view regarded as opposed to the experiences of general practice.

Dr. George Burrows followed with a nearly similar set of experiments on rabbits. He found, on opening the carotid artery and jugular vein, that scarcely a blood vessel was visible after death, while, following death from strangulation, every vessel was turgid with blood. Two killed with prussic acid were suspended while the heart pulsated—one by the ears, the other by the hind legs. In the former the head was completely

anæmic, but intensely congested in the latter. Two were ligatured around the trachea—one being suspended by the ears after death and the other laid upon its side. In the former the cerebral vessels were depleted, but congested in the latter. He concluded that bleeding diminished the quantity and momentum of blood in the brain, and that, as a rule, the brain is congested after death from any form of asphyxia, or interference with the return of venous blood. Diminution of one system of vessels does not necessarily imply repletion of the other, and that circumstances vary the amount of blood within the cranium. Those, he says, who maintain the doctrine of its constancy there have not considered the extra vascular serum, but the whole contents, he concludes, “blood, brain, and serum together, must be at all times nearly a constant quantity.”

By introducing suspension he was able to show that subsidence of fluids was not confined to cavities subject to atmospheric pressure, but operated in the closed cranium. The demonstration was no part of Kellie’s experiment. The formula of Munro did not, and probably could not, contain a place for it, the blood being regarded as the only movable contents of the air-tight box. Donders, carrying on the investigation, closed air-tight with a piece of glass an opening trephined into a rabbit’s skull, and with a microscope observed the vascular changes.

Kussmaul and Tenner repeated and elaborated the experiments of Donders, and confirmed his conclusions. These observers found, on closure of the left subclavian artery and compression of the innominate, the brain become pallid, the smaller vessels invisible, and contraction of the veins opening into the longitudinal sinus, with a doubtful contraction of the sinus itself. During closure of the nostrils or convulsions, the veins enlarged, but the brain position and pallor remained unchanged, and continued so till after death. On restoring the circulation the brain became pink, the finest vessels visible, and the veins enlarged. In the opened cranium the vascular phenomena were the same, but on closing the nostrils or on convulsions supervening, the brain swelled without turning red, although the veins on its surface enlarged. Similarly Kellie opened the cranium of a dog and bled the animal to death. The brain, he says, subsided, and contained very little blood, whereas in the unopened skull the brain filled the cranium, and contained “a considerable quantity of blood.” Many of the conclusions of Kellie, therefore, and the rival ones of the eminent observers who followed him, differ in degree rather than kind; some



maintaining that instead of differing at all, Burrows and Kellie subscribe to the same doctrine. These experimental results show that, while the absolute contents of an intact cranium continue to fill the cavity, the proportion of blood may vary.

We are now in a position to consider the reputed relationship between sleep and the circulation. Dr. Marshall Hall believed sleep to be a result of congestion of the brain—a view, as a cause of natural sleep, probably without place in modern physiology, although the complexity and difficulty of the subject is expressed in the wide and varied range of its distinguished and authoritative hypotheses. Dr. Hammond, of New York, concludes that sleep is directly caused by anæmia, or diminished brain circulation. Mr. Durham, in Guy's Hospital Reports, concludes similarly, maintaining that the cerebro-spinal fluid adapts itself to variations in the amount of blood by receding to spinal cord spaces during congestion, and re-ascending, aided by atmospheric pressure on the soft parts, when the cerebral blood is diminished. Dr. Cappie, of Edinburgh, compensates the variations from the blood itself, and argues that an inactive brain is followed by a diminution of its capillary circulation, and a consequent retreat of its volume from the surface of the unyielding skull. To prevent a vacuum, the retreat is covered by turgescence of the pia-mater veins, into which blood is sucked and forced, aided by atmospheric pressure on the vessels leaving the skull, leading to "altered balance of encephalic circulation," or pressure less expansive, and more compressing, which is his formula for sleep. Kussmaul and Tenner found that during convulsions, or closure of the nostrils, the veins swelled, but the brain pallor remained unchanged. In the dead animal, pressure on the thorax or diaphragm propelled blood into the veins of the neck and skull—even when the throat is ligatured it ascends by the dorsal and vertebral veins. Further, Mr. Durham, in experiments on a dog, found that "the longer the administration of chloroform was continued the more distended did the veins on the surface of the brain become;" as its effects passed off, natural sleep supervened, the venous distension subsided, and the brain became pale.

A clinical *résumé* of the condition is illustrated in the case of E. I., æt. 23, a strong, healthy housemaid, who, to relieve pain and restless nights following a surgical operation on the foot, had a hypodermic injection of half a grain of morphia for a few nights with good results. Two months afterwards she suffered from renal colic, for which she had, with other treat-

ment, one grain of morphia hypodermically for two days in succession. On the third day the paroxysms were so continuous and severe that she had a total of two-and-a-half grains in three hours. The pain subsided for forty minutes after, and then recurred again. In the paroxysms she tossed herself frantically about the bed, shouting "Oh, if I could sleep." The pupils were pin-pointed. Something must be done. Chloroform was gently administered to bring her within grasp of the morphia. It was discontinued in twenty seconds—the respiration suddenly slowing, deepening, and finally stopping altogether. The face became cyanotic. In about three minutes the pulse began to intermit, and all efforts to rouse her failed. Artificial respiration was at once begun, and the right median basilic vein opened and allowed to bleed unchecked. She was lifted into a hot bath that happened to have been ready for another purpose, it being a portable one, her head hung over the edge, and the artificial respiration was continued. In immediate sequence, she groaned, opened her eyes, breathed unaided, and in about twelve minutes after the chloroform was administered she was marching up and down a carpeted corridor between two nurses. After a two hours' immunity the coma again supervened, but with the usual restoratives she was awake and lively four hours afterwards. For some days subsequently she was anæmic from loss of blood, but her recovery was perfect. Durham's chloroform experiment is a commentary on the case, the action of the chloroform being to give a sudden fillip to the compression already increased by the morphia, but which the sudden and decided depletion immediately relieved. Cappie, regarding the retinal veins as part of the cerebral system, appeals to the ophthalmoscope as showing the state of the circulation in the brain. Dr. Hughlings Jackson found the retinal arteries smaller and the veins larger during sleep, and, in a case of abnormal disposition to sleep, Professor Gairdner (Glasgow) found congested retinal veins, but barely visible arteries. In a case ("British Medical Journal," 5th July, 1873) of coma from charcoal fumes, the retina was in a similar condition. Cappie believes, and quotes, that "with a sufficient amount of pressure consciousness is suspended," yet, the transference of blood from the brain capillaries to the veins on its surface is not, in his theory, a cause of sleep, but an invariable consequence of slowing molecular activity. Denying circulation to the cerebro-spinal fluid, he ignores it as a compensatory mechanism, for, he says, even if the subarachnoid spaces communicate with the ventricles of the brain, the compensation would take place too

slowly for the frequent instantaneousness of sleeping and waking. He doubts the existence of Magendie's foramen, but now histologists agree that it, and probably other two (Mierzejewsky), perforate the floor of the fourth ventricle.

As further evidence of anastomosis, the perivascular spaces of the brain, and perineural lymphatics, can be injected from the subarachnoid spaces (Landois and Stirling), the latter communicating with the spongy bone, veins of the skull, and surface of the face (Kolleman); and the nasal mucous membrane with the subdural and subarachnoid lymphatic spaces (Meynert). Further, the cavernous venous spaces, described by Cruveilhier, adjoining the longitudinal sinus, and lined like it, Ludwig Meyer regards as a compensatory mechanism, designed to replete the cranial cavity,—dilated during brain anæmia, and collapsed on the return of the full current of blood (Meynert).

Beyond and behind all these is a sensitive motor mechanism. Arteries all over the body undergo rhythmic movements of contraction and dilatation as demonstrated on the rabbit and frog by Claude Bernard, Schiff, Riegel, and others. These movements cease on division of the sympathetic or spinal cord, pointing to their vaso-motor origin. Burckhardt, on four cases of defective skulls, obtained tracings of three phases of brain movement: (a) The movement common to arteries (the vascular wave of Mosso) 2-6 per minute. (b) Pulse wave 60-80 per minute. (c) Respiratory wave (Ecker) 15-20 per minute—the expiratory rise due to jugular vein stasis and increased aortic pressure, and inspiratory fall due to blood suction heartwards.

The behaviour of the cerebro-spinal fluid before this alternate protruding and depressing force, is shown by Quinke, who, from the spinal subarachnoid space, injected with cinnabar the Pacchionian glandulæ, dura mater, sheaths of cerebral nerves, and cervical lymph glands, the pulse and vascular waves travelling from base to apex, and the respiratory one from vertex to base with similar effects, except in expiration, when the venous blood opposes the lymph current. The swelling of the basal walls of the ventricles diminishes while the higher channels are tumid and constricting the ventricles from the vertex shutting off advancing basal fluid, some of which escapes through the foramen of Magendie opposing the cinnabar from the ventricles, a portion of whose fluid is pressed into the veins of the choroid plexus. On the arterial systole reaching the vertex, diastole sets in at the base, preventing the return of the escaped fluid, as well as pushing fluid past the shrunken upper parts into Pacchionian bodies and sinuses, and then into basilar



nerve sheaths and cervical glands. The dilated choroid arteries secrete fluid which prevents the return of that expelled. The cinnabar, it was observed, failed to reach the perivascular spaces, because, says Burckhardt, during systole parenchymatous fluid fills the spaces in a direction opposed to the course of the injection, and during diastole the arteries fill their own spaces and no cinnabar can enter. Subarachnoidal fluid is forced into the subdural space, and from there filtered into veins and sinuses through the Pacchionian prolongations. Burckhardt maintains that the injection experiment of Quinke proves the vascular wave a motor mechanism, designed to carry off waste products through the lymphatics by setting up currents in the brain fluids.

The relation of these movements to sleep may be explained by the theory that attributes sleep to the accumulation of waste products of tissue metabolism, and recent research has shown this to be no mere theory. For the regular uninterrupted vascular peristaltic movements peculiar to sleep lead, says Burckhardt, to increased deportation of waste products, explaining brain restitution during sleep—a view subscribed by Meynert, who claims for lessened consumption but a minor share in the refreshing influence of sleep.

Mendel found nocturnal urine richer in phosphoric acid than that passed during the day. This observation is shown by reference to the accompanying elimination tables, estimated for consecutive periods of 12 hours—"Diurnal" signifying from 6.30 a.m. to 6.30 p.m., and "Nocturnal" from 6.30 p.m. to 6.30 a.m. Wood also observed that the alkaline phosphates of the urine are slightly increased, but the earthy phosphates more decidedly diminished during mental activity.

Mendel considers, therefore, that nerve tissue increases during mental work, and that excitation involves a synthetic chemical process, and, therefore, a decrease of waste products. The nerve current of rest, increased products of chemical decomposition, and the mechanism for the removal of waste products, exist also during sleep (Meynert). On the same authority "sleep implies a universal diminution of activity, but waking by no means implies increased activity of every part of the cortex," nor, let me add, does sleeplessness. For Burckhardt observed that regularity of the vaso-motor wave was peculiar to sleep, while during waking it reflects the faintest activity, or projection from the external world, the complexity in its variations being determined by the character and form of the excitation. Burckhardt observed that during pain the wave was one of prolonged depression, while sudden

fright caused a rapid rise, followed as quickly by a fall (seen also in the median artery of the rabbit's ear). Quiet humorous reading giving a curve of very irregular variations, and elevation arising less from intellectual processes than from emotions. Further, Ditmar, from manometrical measurements of blood-pressure in the carotid artery during sensory stimulation, found increased arterial pressure keep pace with sensation, as is shown by Goltz and Schlesinger in arteries of spinal-cord centres. That is, that vaso-motor systole, or blood-pressure, increases with the painfulness or intensity and duration of the stimulus. For while reflex response to a weak stimulus applied to the skin of a decapitated frog is small and delayed, reply to a stronger stimulus is ample and sudden, demonstrating the relation between stimulus and reflex (in the sense of Meynert's repulsion), the equation, or physiological equivalent of pain, as well as showing that the reflex, or repulsion, depends on the summation of stimuli, which are transmitted in waves, and not on a single impulse (Stirling). For Schiff and others found on impairing conduction through grey matter that burning the skin only gave rise to a sensation of warmth (analgesia). Similarly, Meynert applies the well-known fact that dipping the finger in water at 50° Celsius is attended with a sensation of warmth, while dipping the whole arm or body is attended with pain, the excitation being more numerous and widely spread in grey matter, of which inhibition is a function, and, with blood pressure, is diminished on removal of the cortex, but increased on its stimulation. The impulse or activity, therefore, need not come from an afferent nerve, but may, as, *e.g.*, an emotion, originate in the cerebrum, giving rise to blushing or pallor, for "stimulation of a nerve may produce inhibitory or augmentative effects" (Foster). Red fluid, therefore, and blood produce the same effects on the retina (Meynert), but the inductions or associations called up by the latter are more intense and widespread, just as a painful emotion, or psychical pain, depends on ex- and in-tensity of inhibition, or of irradiation in the association system. Thus Burckhardt found emotion, as being more widely spread, to more intensely influence the vascular wave than thought. We observe, therefore, that the vascular systole, or inhibition (anæmia), keeps pace with painful activities. "Marked inhibition of nervous impulses from the forebrain excites," says Meynert, "like the inhibited conduction of painful sensory stimuli, or the suggestion of torture, a concept of the impossibility of counteracting this inhibition which may ultimately lead to suicide." But suicide or death,

as the reflex of the widest spread inhibition of association, most intense systole, or "extreme concept of repulsion," Meynert considers may simply be intended to ward off destruction from other portions of our individuality, for, he observes, be the actions of men what they may, "avoidance of greater pain is the determining motive."

The experiments of Ditmar, and tracings of Burckhardt, show that diminished blood-pressure, or hyperæmia, follow non-painful activities, as well as show the converse. For the latter observer found the vascular wave raised by a warm bath, but lowered by a cold one, while Goltz shows that the processes and conditions of blood-pressure are opposite, and not existing together. He elicited on gentle stroking the ordinary croak and embracing spasm in the frog, but inhibited both on applying a painful stimulus at the same time; showing that painful and non-painful, as opposed processes, give rise to opposite conditions of blood pressure, the variety and degree depending, in the psychical sphere, on the extent of association called up, and whether active with pleasurable or non-pleasurable concepts. "A new and stronger emotion," says Sir Henry Holland, "will often totally obliterate a weaker one existing before, though the causes of the latter are still actively present; exemplified in the voluntary infliction of a momentary pain, as pinching or other strong sensation, to counteract the first access of pain which we know will follow a blow or injury. I recollect," he says, "cases where patients combed the hair to bleeding to obviate some distressing sensation elsewhere, for the mind cannot maintain two impressions simultaneously, and, though the succession in such case may be uniformly pleasurable or painful, still it is sequence, and not coalescence of effects." The same authority considers that the circulation may so act on the nervous system as to produce any degree of sleep, for he regards "changes of circulation in the head as doubtless concerned in all these variations." Sleep, he says, is not a "unity of state," but a series of fluctuating conditions, related, and having close kindred to some disorders of the brain.

Differentiating on the same lines, Maudsley says, "sleep is a fluctuating state, not only of the cerebro-spinal system as a whole, but of its different parts."

The pillow in its varying quantity closely demonstrates this relationship, for we have observed that (1) posture varies the circulation in the head, and (2) that the venous circulation there increases with the degree of sleep. Further, diminished elimination of urinary products, as in anuria, may lead to coma,



or deep and prolonged sleep (Christison). In the accumulation of waste products the cause and motive to sleep is ever present, probably impoverishing the brain of oxygen, exciting a dyspnoetic phase of nutrition by interfering with the respiration of nerve-cells; for as soon as the condition of painful sensations exists a dyspnoetic phase of nutrition is set up (Meynert).

To illustrate the anatomical possibility of endless degree or variation in sleep, we have only to refer to the expansion of the pia mater with its "terminal" vessels (Cohnheim) of nearly equal diameter, laid along association and projection systems (shown by injections), as favouring a functional activity of one set of the centres while others rest (Meynert). But let the centres active be where and what they may, the relations between activity and blood-pressure in the brain remain the same.

Sleeplessness, as a variety of cerebral activity, is attended by an irregular vascular wave, anæmia or hyperæmia of the brain, while sleep, or the systole and diastole of regular rhythm, comes in between the two. Sleeplessness, therefore, from what we have shown, is divisible into two great varieties as it is accompanied by increased or diminished cerebral blood pressure (anæmia or hyperæmia), each variety reflecting its own etiological process of pain or pleasure. It is clear, therefore, that degrees and varieties of insomnia, some of which may be complicated with and allied to other diseases, can have no common remedy, explaining much of the varied and apparently contradictory results obtained from hypnotics—even in the experiences of the same observer. Following, therefore, this classification of sleeplessness, hypnotics also resolve themselves into two great therapeutic groups, according as their pharmacology influences the character of the proximate etiological process, or the cerebral blood pressure, in which the variety of the insomnia is mirrored.

Be, however, the variety or degree of sleeplessness what it may, it is never a safety valve, but frequently an aura of subtle and far-reaching evils, the removal of which, even by "any means," is entreated from every department of literature and experience.

Before making clinical observations on hypnotics (Bacon's "balm of life") the following case is given *in extenso* as illustrating two conditions of insomnia, and, as shown by an appeal to therapeutics, distinct, but yet existing together. R.B., male, æt. 60. Suffering from muscular twitchings, inco-ordination, ataxic gait, exaggeration of reflexes, resistance

to passive movements, tremulous and difficult speech. Bundling and destroying his bed-clothes night and day, and scarcely ever asleep. 18th Nov., 1888, 2.14 p.m.—Given  $\frac{1}{160}$  of a grain of the hydrobromate of hyoscin; at 2.35 he is drowsy, but still clutching at the bed-clothes, and the dose is repeated, twelve minutes after which he is asleep, but the muscular twitchings are observed here and there—a slight touch readily eliciting the motor inclination. Easily wakened, he goes to sleep again almost immediately. Pulse 60, full and regular, respirations 20 per minute. Wakened for tea at six, but asleep again at 7.45, when the pupils are sluggish and slightly dilated, and the reflexes seem charged with excitement. Awake at ten, but looking stupid and sleepy, moving his head first one way then another. 19th Nov.—This morning he is wandering about and restless as ever. At 12 noon he gets  $\frac{1}{120}$  grain hyoscin. At 1.40 he is lying down, but his limbs actively jerking amongst the bed-clothes, which he fumbles and bundles hither and thither, when he now gets 15 grains urethane. At 2.5 p.m. he is asleep, and the bed-clothes are tucked about him without any resistance. Awake again at 2.35, but quietly looking at the wall, and manifesting no muscular impatience. The muscles are fairly flaccid, resistance easily overcome, and reflexes not so excitable to touch. Slept from three to four o'clock with no apparent muscular twitchings. Restless from six to nine o'clock, when he gets other 15 grains urethane. 20th Nov.—Restless from four a.m., but awake all night. At 11 a.m. he gets  $23\frac{1}{2}$  grains urethane, and is left busy with his bed-clothes. At 12.40 he is not asleep, but quietly resting. 21st Nov.— $23\frac{1}{2}$  grains urethane repeated last night, after which he slept all night. Urethane discontinued to-day, but hyoscin continued as a night draught, until, on the 8th Dec., the maximum dose of  $\frac{1}{50}$  grain is reached. It is finally discontinued on the 15th January, 1889. For twelve of the nights he was on hyoscin he slept all night, but was restless and destructive for the remaining forty-three nights. He became emaciated to a degree, and died from exhaustion on the 14th of March, 1889. A post-mortem examination was not obtained.

Hyoscin given alone induced sleep, but a sleep in harness, for a spasm or movement was nearly as easily elicited on touch as when awake. Urethane induced muscular stillness, or rest, without obliterating the cerebral restlessness. With urethane in combination with hyoscin, however, the spinal-cord impatience subsided, and there was sleep with muscular flaccidity super-added.

*Hyoscin*.—Hyoscin was discovered by Ladenberg in 1880. In the "Practitioner" for Nov., 1886, Dr. J. Mitchell Bruce has observed concerning it as follows:—Case I.—Hydrophobia with spasms. Result, death. Case II.—Delirium, apparently from hyperpyrexia. Result, recovery. Case III.—Cardiac dilatation, albuminuria, dropsy, and delirium. Result, compensation practically re-established. Case IV.—Pleurisy, empyæma, and alcoholic delirium. Result, success. Case V.—Chronic Bright, hallucinations and delirium. Result, discharged unfit. Case VI.—Acute double pleuro-pneumonia with delirium. Result, recovery. Case VII.—Insomnia with restlessness. Result, failure. Case VIII.—Profound hysteria or dementia, with refusal of food. Result, sent to an asylum unfit. Case IX.—Epileptiform convulsions, with a history of head injury (in combination with bromide). Result fair, but discharged unfit. This last case is a parallel to the case of R. B., with urethane and hyoscin.

Dr. Drapes, in his experiences of hyoscin ("British Medical Journal," April 7th, 1889), concludes something as Dr. Bruce has done. These observations accord with my own experience as far as they have gone, but while the results of these observers were confined, in some of the cases, to one, two, or more applications of the drug, the following is a record of continuous and systematic use over periods of from five to ten weeks, showing the ultimate effects of the drug on habits and nutrition generally.

Throughout these observations the urea is estimated by decomposition with hypo-bromite of soda prepared at the time, and estimating the amount of nitrogen gas evolved (Russell and West).

The phosphoric acid is estimated by a S. S. of uranium acetate, with a solution of ferrocyanide of potassium as an indicator.

CASE I.—Jane A., æt. 19. An excited, sleepless, and acute maniac. 3rd December, 1888—Put on  $\frac{1}{100}$  grain hydrobromate of hyoscin at bed-time. 16th—Weight 126lbs., sleeps better, but her food has to be spooned into her. 17th December—Now on  $\frac{1}{100}$  grain hyoscin morning and evening. 25th—As a rule she is noisy and restless every night; hyoscin increased to  $\frac{1}{50}$  grain twice daily. 1st January—Sleeps for a few hours in the early morning. 16th January—Weight 122lbs. She is destructive, idle, and very untidy in her habits; hyoscin discontinued. 12th February—Works a little in the wards. 20th—Working in wash-house. 28th March—Weight 137lbs. She is clean, tidy, and bright, and fast convalescing. 20th May—Discharged recovered.



CASE II.—Annie W., æt. 41; married. Labouring under chronic mania for 14 years. Her treatment included an experience in most hypnotics, croton oil vesication, shower baths, and having her head shaved; but she remained violent, noisy, destructive, and untidy. October, 1879—She is noted as on hyoscyamine, and quieter; and for ten days usefully employed. November, 1888—She crouches naked in the corner of a shuttered room. When bearable she is up, and sits on her haunches in a corner with her dress over her head; but in a moment she may rush along the ward, tossing and knocking over everything moveable; then, as suddenly, squats as before in an opposite corner. She looks pale, wiry, and wild. November 27th—Put on  $\frac{1}{100}$  grain hyoscin thrice daily. December 12th—She is calmer since last note, but is now getting wild. Dose increased to  $\frac{1}{50}$  grain thrice daily. 14th—Walking beyond the grounds, what she has not done for years. Weight 121lbs. 25th—In bed excited. Her nights vary from noisy all night to slept well. 28th—Wild and dirty as ever, and in bed. January 5th—Hyoscin increased to  $\frac{1}{40}$  grain thrice daily. February 1st—Weight 115lbs.; hyoscin discontinued. March—Weight 118lbs. She is on small doses of tinct. opii thrice daily, and she is up part of every day, and frequently the whole day.

CASE III.—Elizabeth G., æt. 35; married. She is suspicious, delusional, very abusive, and violent, especially on the entrance of the medical officers, on whom she would make an onslaught tooth and nail if not restrained; when *in furore* she exhausts herself. She belongs to the discontentedly lean, and never takes time to fatten, although her appetite is very fair. She is restless at night, but her habits are tidy, and she sews or knits daily when at her best. 20th November, 1888—Put on  $\frac{1}{100}$  grain hyoscin morning and evening; quieter after first dose. 27th November—Quietly muttering to-day. 9th December—Aggressive and violent again. 10th—Dose increased to  $\frac{1}{50}$  grain twice daily. 13th December—Quietly winding wool. 18th—Weight 103lbs. 26th—Restless and discontented, but not violent. 16th January—Wild as ever, appetite variable; hyoscin discontinued; weight 97lbs. 1st March—Weight 102lbs. Result, no improvement.

CASE IV.—Elizabeth B., æt. 30. Chronic maniac. January, 1888—Shouting, "Oh, the pain in my head!" Her habits are untidy. A course of chloral hydrate was followed by one of hyoscyamine; weight 102lbs. May—Weight 88lbs. September 24th—Hyoscyamine only given occasionally. She is unimproved. November 18th.—Put on  $\frac{1}{100}$  grain hyoscin twice daily. November 28th—Conduct unchanged, but quieter at night. December 18th— $\frac{1}{40}$  grain hyoscin hydriodate twice daily substituted. January 5th, 1889—Covered by a canvas rug, she lies naked in the dirty coir teased from her destroyed bed. She tears everything tearable, and is disgustingly dirty. If the door of her room is unguarded, she may rush out, and

break a mirror or window. A  $\frac{1}{40}$  grain hyoscin hydrobromate given twice daily; hydriodate stopped. January 9th—Sleeps better, but otherwise is unimproved. April 1st—Weight 92lbs.; hyoscin discontinued. May 3rd—Getting small doses of tinct. opii. She is now up daily, and walking beyond the grounds; weight 96lbs.

CASE V.—Henry E., æt. 50; suffering from acute mania. 13th December, 1888—Weight 146lbs.; sleepless, destructive, noisy, and undressing himself. Given  $\frac{1}{100}$  grain of hyoscin as a night draught. 15th—Still noisy, and dose increased to  $\frac{1}{80}$  grain. 16th—Slept for six hours last night. 19th—Restless again. 20th—Dose increased to  $\frac{1}{80}$  grain morning and evening. 21st—Slept eight hours last night. 29th—He is as excited as ever, and frequently noisy all night. 9th January—Weight 131lbs. 14th January—Never at rest; pokes the fire, knocks things about, talking excitedly and gesticulating, but good natured. Weight 128lbs.; hyoscin stopped. March 1st—Weight 136lbs., but is unimproved. April, 1890—He has acquired untidy habits, but otherwise he remains unchanged.

CASE VI.—John H., æt. 36; married. He is idle, mischievous, and abandoned. 13th December, 1888—Weight 172lbs. He scarcely ever sleeps, and is to-day put on  $\frac{1}{100}$  grain hyoscin thrice daily. 15th December—Sleeping better. 24th—Frequently suffers from diarrhœa, and is mentally unimproved. 26th December—Hyoscin increased to  $\frac{1}{80}$  grain thrice daily; habits dirty. 29th December—Tears the strongest canvas bed-rugs in the house. 9th January—He is intractable as ever, but sleeps better. 14th January—Weight 159lbs. He refuses his food, which he throws all over the room. 31st January—Secluded for violence. 24th February—Continuously secluded. He speaks coherently, and with deliberation, but is exceedingly cunning and destructive. 20th March—Weight 121lbs. The hyoscin is discontinued to-day, and tinct. opii in small doses substituted. He is getting very feeble, and nightly disembowels his mattress, and sleeps inside it. May 17th—He died from phthisis.

CASE VII.—A. Bell, æt. 23; single. She is now in her third attack of acute mania, talking and gesticulating incessantly. 5th September, 1888—Weight 120lbs. She is noisy every night, and her habits untidy, destructive, and indecent. 10th December—Given  $\frac{1}{100}$  grain hyoscin at night. 16th—She is up for a few hours daily, but as excited as ever. 17th—Weight 104lbs. 18th—Hyoscin increased to  $\frac{1}{80}$  grain every evening. 26th—She goes to sleep about half-an-hour after her draught, and sleeps from three to four hours. Weight 108lbs. 1st January—Restless every night. 16th January—Weight 111lbs.; hyoscin discontinued. 1st February—Weight 126lbs. 27th—She is idle, but clean in her habits. 4th April—She works in the laundry. April, 1890—Working there still, but is now a silent dement.

CASE VIII.—Anchor. T., male, æt. 38. Suffering from chronic mania for 14 years, with exacerbations of excitement, when he tears

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the strongest canvas to shreds. He is noisy, and dirty in his habits. 15th December, 1888—He is at the height of excitement, and altogether like a wild beast. 12.40 p.m.—Given  $\frac{1}{50}$  grain hyoscin; at 1.10 he is quiet, and at 1.40 asleep. 6 p.m.—Getting excited as ever, and is given another  $\frac{1}{50}$  grain, ten minutes after which, while pulling a picture from the wall, he fell back in what seemed a genuine epileptic fit, with a momentary apparent loss of consciousness. He slept from 6.30 to 8 p.m. At 9.30 his temperature is F. 99°, and pulse 96—regular and full; pupils large and sluggish; skin moist, and no sign of collapse. He seems very drowsy. He went to sleep at 10, and slept for seven hours. 16th—Talking and gesticulating, but much subdued. 20th—Weight 152lbs.; hyoscin  $\frac{1}{50}$  grain continued every evening. 30th—Sleeps, on the whole, fairly well. 14th January—He is up daily, and very quiet; weight 149lbs.; hyoscin discontinued. When 17 years of age he had one fit, but there is no record of any since. April, 1890—Unimproved and hopeless.

CASE IX.—Elizabeth D., æt. 50, widow. Suffering from melancholia. For months she sits idle all day, wishing for death. She had been on hyoscin and paraldehyde, but without much apparent benefit. The further record of the observation is found on Table I.

According to Clouston, hyoscin is a type of a cortical motor depressant, while Leech observes that it is, in cases of sleeplessness with delirium, as is well known, that hyoscin is often used with such great advantage, especially where great mental disturbance is accompanied by considerable excitement of the circulation. Hyoscin is capable of paralyzing all brain excitement, but not, especially when used systematically, of giving that rest in which mind tissue heals.

Its best reputation is acquired when the necessity for continuing it disappears on a few applications. Systematic use is, however, difficult to avoid, as toleration is early acquired. There was an almost universal loss of weight, which, however, was most marked in acute maniacs, and probably from impaired appetite. By the time the drug was discontinued, the greater number of these cases were idle, and untidy in their habits; those who were untidy to begin with becoming more so. This degradation takes place comparatively suddenly in young cases, and particularly so when they are acute and recent. In the chronic and old it is more insidious and less apparent, but equally certain. These disadvantages were, in some instances, recovered from on withdrawing the drug. From these observations, therefore, hyoscin, it may be observed, is an allayer of mental excitement rather than of motility, which, however, becomes depressed secondarily, or as a consequence.



TABLE I.  
ELIZABETH D., æt. 50; Melancholia.

"DIURNAL"—6.30 A.M. TO 6.30 P.M.										"NOCTURNAL"—6.30 P.M. TO 6.30 A.M.										IN THE 24 HOURS.		
Date.	Diet.		Temp.		Pulse.		Resp.		Date.	Medicine.	Urine passed for the 12 hours.	Reaction.	Specific Gravity.	Phosphates.	Urea.	Sleep.	Temp.		Pulse.		Resp.	
	Solids.	Fluids.	9 a.m.	1 p.m.	9 a.m.	1 p.m.	9 a.m.	1 p.m.									7 p.m.	7 p.m.	7 p.m.	7 p.m.		
1890	Grms.	C.C.	C.C.		Grms.		Grms.		1890.	Grains.	C.C.	Acid	1021	44	7.7	Hours	C.C.		Grms.		Grms.	
Apr. 18									Apr. 18-19	None	426	Acid	1015	42	8.1							
" 19									" 19-20	"	511	Acid	1018	50	8.2							
" 20									" 20-21	"	454	"	1022	59	9.6							
" 21	793	750	539	Acid	1013	35	6.1		" 21-22	"	383	"	1026	61	11.							
" 22	"	"	156	"	1029	31	4.6		" 22-23	"	314	"	1017	82	10.							
" 23	"	875	369	"	1020	31	6.7		" 23-24	"	552	"	1019	87	9.4							
" 24	"	765	"	262	1021	44	6.7		" 24-25	"	436	"	1031	75	9.1							
" 25	"	"	430	"	1019	63	8.2		" 25-26	"	320	"	1018	47	8.9							
" 26	"	"	"	"	1021	44	6.7		" 26-27	"	524	"	1018	47	8.9							
" 27	"	"	500	"	1017	65	7.9		" 27-28	"	360	"	1022	60	8.8							
" 28	737	874	440	"	1016	48	7.1		" 28-29	"	460	"	1021	96	13.9							
" 29	793	1000	578	"	1024	93	13.8		" 29-30	"	266	"	1026	40	5.9							
" 30	850	750	530	"	1021	45	8.		" 30-31	"	194	"	1016	76	10.6							
May 1	737	800	294	"	1015	46	8.9	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
" 2	737	900	650	"	1017	93	12.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
" 3	680	750	498	"	1022	55	12.4	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
" 4	"	"	306	"	1025	70	8.7	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
" 5	793	"	312	"	1025	63	9.5	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
" 6	680	"	435	"	1026	95	12.9	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
" 7	737	"	224	"	1032	64	8.9	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
" 8	765	"	380	"	1020	66	9.3	97.4	96.8	100	104	24	20	22	22	22	22	22	22	22	22	22
" 9	793	800	396	"	1027	110	13.4	97.8	97.2	98	98	22	24	24	24	24	24	24	24	24	24	24

TABLE I.—(Continued.)

"DIURNAL"—6.30 A.M. TO 6.30 P.M.													"NOCTURNAL"—6.30 P.M. TO 6.30 A.M.													IN THE 24 HOURS.		
Date.	Diet.		Temp.	Pulse.		Resp.	Urea.	Specific Gravity.	Phosphates.	C.O.	Reaction.	Urine passed for the 12 hours.	Medicine.	Date.	Grains.	C.O.	Reaction.	Specific Gravity.	Phosphates.	Urea.	Sleep.	Temp.	Pulse.	Resp.	Quantity of Urine	Phosphates.	Urea.	
	Solids.	Fluids.		9 a.m.	1 p.m.																							9 a.m.
1890.	Grms.	C.O.	C.O.	Grms.	Grms.	Grms.	Grms.	Grms.	Grms.	Grms.	Grms.	Grms.	Grms.	1890.	Grains.	C.O.	Reaction. <td>Specific Gravity.</td> <td>Phosphates.</td> <td>Urea.</td> <td>Hours</td> <td>7 p.m.</td> <td>7 p.m.</td> <td>7 p.m.</td> <td>Grms.</td> <td>Grms.</td> <td>Grms.</td>	Specific Gravity.	Phosphates.	Urea.	Hours	7 p.m.	7 p.m.	7 p.m.	Grms.	Grms.	Grms.	
May 10	793	800	364	Acid	1023	72	10.2	97.6	97.8	98	94	22	20	May	Hyoscin $\frac{1}{100}$	572	Acid	1015	71	10.4	7	98.	100	23	938	1.43	20.6	
" 11	822	"	444	"	1017	67	9.6	98.	97.8	103	100	34	24	"	none	416	"	1020	65	11.8	8	97.8	98	25	860	1.32	21.4	
" 12	850	"	442	"	1018	61	9.1	97.4	97.4	108	100	18	20	"	"	292	"	1032	71	10.6	8	97.6	100	23	716	1.32	19.7	
" 13	"	"	574	Alk.	1020	74	11.2	97.	97.8	95	105	27	24	"	"	554	"	1015	81	10.7	7	97.8	97	23	1128	1.55	21.9	
" 14	"	"	596	Acid	1016	64	8.8	97.4	97.	98	91	23	20	"	"	3.4	"	1025	70	10.5	7	97.4	93	23	910	1.34	19.3	
" 15	"	"	658	"	1017	90	12.3	97.2	97.	98	94	20	20	"	Hyoscin $\frac{1}{100}$	550	"	1017	85	11.	8	97.4	90	22	22	12.8	2	23.3
" 16	737	"	385	"	1020	66	8.7	97.2	96.8	98	92	22	24	"	"	582	"	1015	82	10.	4	97.6	89	24	967	1.48	18.7	
" 17	793	900	448	"	1018	68	8.7	97.2	97.4	94	88	20	24	"	"	570	"	1014	84	8.4	8	97.4	90	23	1018	1.52	17.1	
" 18	"	"	850	570	1015	74	8.3	97.2	97.	88	75	20	18	"	none	580	"	1013	84	8.3	7	98.	98	26	1150	1.58	16.6	
" 19	"	"	480	"	1017	89	8.6	97.8	97.2	96	92	26	21	"	"	500	Alk.	90	9.6	7	98.	98	20	980	1.79	8.2		
" 20	"	"	800	452	1016	67	10.5	97.2	97.	96	98	20	21	"	"	384	Acid	1024	80	12.2	6	97.8	94	24	836	1.47	22.7	
" 21	"	"	582	"	1016	69	11.2	97.2	97.8	98	92	23	21	"	"	456	"	1015	68	10.7	8	97.6	88	24	1033	1.37	22.9	
" 22	"	"	462	"	1020	81	10.5	97.4	97.8	100	98	19	23	"	"	542	"	1015	74	10.5	5 $\frac{1}{2}$	98.4	100	24	1004	1.55	21.	
" 23	"	"	376	"	1021	78	11.1	97.4	97.	100	96	24	24	"	"	474	"	1014	76	8.9	9	97.8	94	26	850	1.54	20.	
" 24	"	"	372	"	1022	78	11.8	97.2	97.8	98	96	22	23	"	"	440	"	1019	72	11.2	2	97.8	98	26	812	1.50	23.	
" 25	"	"	516	"	1015	60	9.7	97.2	97.	100	90	26	21	"	"	704	"	1010	76	9.7	7	98.	98	24	1220	1.36	19.4	
" 26	"	"	370	"	1020	62	9.2	97.4	97.4	100	84	26	22	"	none	558	"	1015	58	7.7	8	97.4	96	20	928	1.20	16.9	

## NOTES TO TABLE I.

April 19th. Nocturnal urine lost; April 20th. No collection of urine made; April 21st. Diurnal urine lost; April 22nd Patient very miserable and unemployed; April 23rd. Appetite fair; May 5th. Restless at night; May 10th. No change; May 16th. Seems, if possible, more miserable; May 21st. No change; May 23rd. Almost refuses her medicine; May 25th. Takes her medicine only in presence of stomach tube.

N. B.—No medicine was given during the day from April 18th to May 26th.

It may further be observed that while the urea is diminished, the phosphates are slightly increased.

*Urethane.*—The therapeutic action of this drug is already clearly demonstrated in combination with hyoscin in the case of R. B., where, by contrast, the sedative or hypnotic action of the two drugs is manifestly different in kind—from a probable preference for different foci of activity.

The characteristic action of urethane finds demonstration in the experiments of Coze, who found that rabbits under its influence could stand large doses of strychnine. Jackmann used it successfully when chloral hydrate failed in the treatment of a case of traumatic tetanus, and the following cases extend its application in the same direction :—

CASE I.—Catherine E., æt. 13; an epileptic imbecile. The few words of her vocabulary are used irrelevantly. Her gait is staggering. Fits followed scarlatina six years ago, and she has had no fewer than six in twenty-four hours since; and frequently a bout of twenty to forty. 30th March, 1889—Given two grains urethane thrice daily. 9th April—Dose increased to  $8\frac{1}{4}$  grains thrice daily. 18th—Fits fewer and less severe. 30th—Fits ceased, and urethane discontinued. 2nd May—She has had eight severe fits this morning. 4th—Given five grains bromide of potassium thrice daily. 6th June—Fits average two in the twenty-four hours. 10th June—Fits average six in the twenty-four hours. 14th—She is in a severe bout; fit succeeds fit with an almost continuous coma. She has had two enemata of chloral hydrate and bromide, but the fits are not subdued. 15th June—Patient died.

CASE II.—George R. R., married, æt. 38. Suffering from acute mania, muscular excitement, and nervousness. 3rd May, 1887—He has not slept for five nights, but a hyoscyamine draught last night was followed by six hours' sleep. This morning he is excited and restless, but looks exhausted. His tongue is dry, appetite poor, and thirst considerable. At 3 p.m. he is given 20 grains of urethane, and other 20 grains at 7 p.m., and 20 at 10.45 p.m. 5th—He slept six hours last night. His appetite is improved, and he is put on 20 grains urethane thrice daily. 6th—He slept well last night, and is quiet and taking all his food to-day. 7th—Urethane increased to 25 grains thrice daily. 8th—Quieter to-day; he answers questions; the muscular excitement is almost gone, and his appetite is excellent. He says the medicine is cinchona. 10th—Urethane discontinued. 10th June—He is working in the grounds daily. 22nd—Discharged recovered, and in good bodily health.

CASE III.—Annie B., æt. 38, married. She is as a rule stupid and incoherent, and an epileptic for the last ten years. During and after a bout she is either maniacal or very stupid. The number of fits recorded on Table IV., before the urethane was begun, gives a



TABLE II.

ANNIE B.; æt. 38; Epilepsy.

"DIURNAL"—6.30 A.M. to 6.30 P.M.													"NOCTURNAL"—6.30 P.M. to 6.30 A.M.																	
Date.		Diet.		Urine passed for the 12 hours.	Reaction.	Specific Gravity.	Phosphates.	Urea.	Ffts.	Temp.	Pulse.	Resp.	Temp.	Pulse.	Resp.	Quantity of Urine.	C.C.	Grms.	Phosphates.	Urea.	Ffts.									
Solids.	Fluids.	C.C.	Grms.																											
1890	May 2	737	1060	686	cid	1018	97	14	1	98.8	97.4	72	80	18	16	534	Acid	1021	.78	9.1	1	8	93	78	16	1220	1.75	23.1	2	
"	3	793	1250	232	"	1022	98	74	1	97.8	98	74	80	20	22	1016	Alk.	1010	.75	9.1	2	8	97.2	80	22	1242	1.07	23.1	3	
"	4	765	4000	318	"	1026	96	6	none	97.4	97.6	82	80	23	19	638	Acid	1015	.90	9.1	none	9	98.2	76	20	966	1.56	15.1	none	
"	5	850	900	388	"	1026	1.02	11	"	97	97.6	74	76	19	20	642	1015	.92	9.2	1	9	98.8	72	21	1030	1.77	20.2	1		
"	6	793	900	400	"	1025	.81	8.3	1	97.4	97.4	82	80	22	24	898	1013	.81	9.4	none	7	97.8	82	20	1298	1.62	17.7	1		
"	7	"	"	180	"	1025	.53	5	"	97	97.2	68	76	21	20	482	1018	.65	6.1	"	8	98.2	80	15	662	1.18	11.1	1		
"	8	737	1000	356	"	1016	.42	6.2	1	97.2	97.4	76	82	21	22	784	1011	.78	14.8	1	7	98	82	22	1140	1.30	21	2		
"	9	765	"	418	"	1016	.83	10.1	2	97.8	98.2	80	82	21	21	10	668	Alk.	1012	.64	8.8	none	5	98.2	82	18	1286	1.47	18.9	2
"	10	828	"	422	"	1015	.40	5.9	none	98	98.4	78	82	22	21	10	900	1011	.54	7.1	1	7	97.4	78	18	1322	1.11	13	1	
"	11	850	"	446	"	1015	.59	9.1	1	97.6	97.8	72	80	22	22	10	666	1012	.59	7.9	none	9	97.8	84	20	1120	1.18	17	1	
"	12	737	"	300	"	1019	.29	6.7	1	98.4	98.6	80	80	23	24	30	1120	1011	.64	10.2	"	7	97.6	82	20	1420	.93	16.9	1	
"	13	661	900	360	"	1017	.45	6.1	2	97.6	97.6	74	81	20	23	30	708	1013	.56	8.4	"	5	97.4	75	22	1068	1.01	14.5	2	
"	14	"	"	480	"	1017	.44	6.5	1	97	97.6	73	80	20	23	30	312	1013	.56	8.4	2	5	98	76	22	792	.87	10.6	3	
"	15	"	"	514	"	1015	.40	7.2	none	97.6	99.4	78	84	21	19	30	540	1015	.65	7.4	none	6	98.4	82	19	1014	1.25	14.6	none	
"	16	623	750	236	"	1023	.69	6.4	"	98	98.6	78	80	23	21	30	800	Alk.	1010	.75	7.6	"	7	97.4	77	22	1076	1.34	14	"
"	17	"	"	266	"	1018	.64	8.8	"	98.2	98.4	76	80	18	21	30	242	Acid	1020	.59	4.6	"	5	97.8	78	15	708	1.23	13.4	"
"	18	"	900	396	"	1019	.76	8	"	98.4	98.6	78	81	23	21	30	734	1010	.68	8.8	"	6	97	74	20	1130	1.44	16.3	"	
"	19	661	"	420	"	1018	.58	7.8	"	98.2	99	82	84	21	22	30	574	1014	.63	6.5	"	8	98.2	80	19	994	1.23	14.3	"	
"	20	"	"	430	"	1013	.35	6.3	"	97.6	98.6	70	80	21	19	30	882	1010	.53	7.4	"	7	97.4	78	22	1312	.88	13.7	"	

fair account of their frequency since her admission six months ago. The urethane was only given at night, and after the third dose of 30 grains she had no nocturnal fits, while the day ones certainly lost their severity. She is now never incoherent, she knits or sews, and walks out daily, and her memory is good. She takes an interest in her surroundings and in current events. I feel sure that a similar dose during the day would diminish or entirely subdue the day fits also.

As shown by the experiments of Coze and Gordon, urethane diminishes the spinal reflexes and peripheral sensation. Urea is slightly increased by small doses, as was shown by Gordon, but diminished by large ones. The phosphoric acid is always diminished—its diminution, within certain limits, keeping pace with the dose; fits, as seen from the table, similarly affecting its elimination, while they have an increasing or opposite action on the urea. The temperature, pulse, and respiration are diminished on large, but not appreciably affected by small doses. No sickness, diarrhoea, or loss of appetite was observed from its use, but in some cases the appetite was certainly improved. Urethane, in its therapeutics, it may be observed, is closely allied to the bromides. In my experience all hypnotics in large doses depress the heart's action, and with the exception of sulphonal, reduce the temperature. Even the latter drug in continuous and large doses is no exception to the rule. The action on the heart may explain the curve of urinary excretions, an action probably diastolic, or opposed to that of the digitalis group. This latter observation probably applies to all the so-called hypnotics referred to in this paper.

The indications of urethane, it may be observed, therefore, are found in the milder forms of irritability of the nervous system, exaltation of function, fidgets, epilepsy, and the insomnia associated with these conditions.

*Opium.*—The historic "Gift of God" has entered upon a new trial—not as a competitor, however, for it has probably no compeer, but to erase from its record alleged disadvantages that mar its reputation, and narrow its hopes and uses; it still tops the list as a hypnotic, and experience but widens the field of its application while other hypnotics pass away.

CASE I.—John C., married, æt. 50, suffering from mitral and aortic disease, with great cardiac irregularity, sleeplessness, and dyspnoea. He sits propped up in bed night and day, with coat and vest off, and shirt unbuttoned. His limbs are œdematous, and he looks sallow, distressed, and exhausted. 17th Sept., 1888—Put on 5m doses each of tincts. opii and digitalis. After the third dose he is sitting

up and dressed. The digitalis is discontinued. There is an apparent relief to the breathing, and the heart is steadier and less irritable, but still irregular. 18th—Given  $\frac{1}{2}$  grain of opium and 5m tinct. digitalis at bedtime. 19th—Slept four hours last night. This morning the breathing is much relieved, and the fluttering discomfort over the heart is very slight. 20th—He is dressed, sitting in a chair, for he cannot stand without support; his facial expression, however, is comfortable. Yesterday he said he was dying, but to-day he is hopeful and cheery; his appetite is improved, and the œdema disappearing. He gets opium thrice daily. 11th Nov.—Still on opium. He walks to the dining room unassisted, although with difficulty. 23rd—Discharged mentally recovered.

The deep-seated pressure is diffused, and the heart stimulated, partly from acting under more favourable conditions. The dropsy and sense of impending death disappear, and the nervous system becomes relieved of the constant irritation of an irregular pulse wave.

CASE II.—William D., æt. 75. A feeble and noisy chronic maniac or dement. The inner lower surface of left leg is covered by an enormous foul-smelling ulcer of 20 years' standing. June, 1886—Iodoform dressing and rest in bed lessened this surface, and the suppurating points are nearly healed, and at the end of August he left his bed. Dec.—Resting in bed again. The ulcer is not yet healed, and the œdema in its neighbourhood is considerable. Feb., 1887—Sitting up again. March—The ulcer is broken down and foul-smelling as ever. Appetite poor and general health feeble. His nights, almost invariably, are noisy. April 26th—He is put on 45m paraldehyde as a night draught. May 1st—Getting one grain of opium at night. 3rd—30m tinct. is substituted. He sleeps and rests better. June—Getting as many as 60m tinct. opii every evening. The ulcer is healed, his appetite is good, and he moves about the airing court daily; good-natured and cheery. 8th. Oct.—Opium discontinued. Dec. 1st—He is very feeble and the ulcer completely broken down. His appetite is poor, and he never leaves his bed. 6th Jan.—Still in bed, and the ulcer improved, but not healed. 27th—He is up a little occasionally. 20th Feb.—Died from pneumonia.

The paraldehyde had no apparent effect, but for the five months he was on opium the ulcer remained healed, and he was up daily. Two months after it was stopped, the ulcerated surface again broke down.

The healing of the ulcer may be partly explained by the removal of the chronic starvation that may have helped to keep it open.

CASE III.—C. M., female, æt. 15, suffering from typhoid. Even-



ing temperature as high as 104°F. Stools about six per diem; intestinal pain considerable; pulse 120-140; skin dry, but extremities clammy, with severe headache and distressing sleeplessness. Given  $\frac{1}{2}$  grain opium, made into pill form with bread crumb, every four hours. After the third pill the skin became active, the diarrhœa restrained, the pulse soft and diminished in frequency, and a refreshing sleep was enjoyed when it was most needed.

CASE IV.—Sarah B., single, æt. 21, suffering from acute rheumatism, pericardial effusion, headache, severe tinnitus, irregular breathing, and great want of and desire for sleep. Given a pill containing one grain of opium and three of calomel every three hours until sleep was induced. The relief became apparent after the second pill; the head symptoms and joint pains becoming less severe, breathing slower and more regular, pulse soft, heart less energetic, and the patient slept quietly.

This combination seems to have a special indication in conditions of pyrexia, when headache or noise in the head is complained of, and is aggravated or caused by too energetic cardiac action. In the cases of chronic mania in which hyoscin failed, the success obtained from opium, it will be observed, is unapproached by that of any other drug used. In painful conditions it searches out the seat of unrest almost wherever it is, and frequently restores the break in the physiological unity. In the insomnia and miseries of senility, its sleep more closely approaches that of health, while the body weight frequently increases as evidence of the improvement in nutrition.

To the digestion, in such cases, it is soothing, and, it may be, stimulating, especially when that function is long established and habituated to a variety of conditions. The circulation is more equably distributed, especially in cases of atheromatous and relatively impermeable blood vessels, where the resiliency that adapts itself to the heart's beat is lost or modified.

Dr. Stephen Mackenzie, in a paper on the treatment of chronic uræmia by morphine, read before the Medical Society of London, claimed to have got good results from morphine in uræmic dyspnœa. Dr. Loonns, who among American physicians has made this practice his own, records a case of complete uræmic coma in which he administered  $\frac{1}{2}$  grain of morphine in a single dose with good results. "In no instance," he says, "am I aware that I have caused a fatal narcotism."

Mr. Alfred Grace reports two cases of puerperal convulsions treated by morphine; a first injection of one grain was followed by a second of nearly that dose. Both made a perfect recovery. In the discussion on Dr. Stephen Mackenzie's

TABLE III.—WILLIAM S.; æt. 50; Chronic Bright's, and Melancholia with delusions.

Date.	Medicine.	Urine passed in 24 hours.	Reaction.	Specific gravity.	Urea.	Albumen.	REMARKS.
1889.	Grains.	C.C.			Grms.	Grms.	
June 21	None	1306	Alk.	1018	23·8	23·3	Considerable debility and dyspnœa
" 22		1448	"	1019	24·1	20·4	
" 23		1930	"	1017	32·1	23·3	
" 24		1817	"	1012	18·2	26·1	
" 25		1646	Acid	1016	21·6	—	
" 26		1604	Alk.	1017	23·4	—	
" 27		1774	Acid	1010	21·	45·8	
" 28		1618	"	1015	24·	—	
" 29		2385	"	"	31·5	33·6	
" 30		1831	"	"	21·7	22·7	
July 1		3009	"	1011	30·	30·5	
" 2	Opium 1½	2655	Alk.	1014	26·	61·3	
" 3	"	2214	Acid	1016	27·7	24·6	
" 4	"	1987	"	1017	27·6	35·5	
" 5	"	3151	Neut.	1011	33·	35·5	
" 6	"	2087	Acid	1018	30·9	29·9	
" 7	"	2413	"	1015	30·2	51·	
" 8	Opium 3	709	"	1019	13·7	3·9	Purged four times; urine for 12 hours lost during night
" 9	"	1490	"	1017	21·4	10·9	
" 10	"	1774	"	1016	24·3	20·5	
" 11	"	1490	"	"	22·1	9·2	
Aug. 21	None	2995	"	1010	22·5	24·	
" 22	"	3166	Alk.	1009	28·1	20·	
" 23	"	2541	Neut.	1011	24·3	18·2	
" 24	"	3293	Acid	1009	30·	42·6	
" 25	"	3379	Alk.	1009	26·9	23·3	Legs cedematous
" 26	"	2626	Acid	1012	23·9	11·8	Slightly jaundiced
" 27	"	3123	"	1010	24·9	7·4	Weight 12st. 7lbs.
" 28	Morphine ¾	2555	"	1010	22·7	24·5	Doing a little work.
" 29	"	2186	"	1012	23·9	25·8	
" 30	"	1732	"	1013	22·5	20·7	Perspiring freely; appetite good, and thirst not in- creased.
" 31	"	1632	"	1012	22·7	17·2	
Sept. 1	"	1547	"	1012	20·4	3·5	No constipation
" 2	"	1036	"	1016	18·4	13·5	Purged three times during the night
" 3	"	1746	Alk.	1009	19·9	8·8	Weight 13st. 1½lbs.; slightly purged
" 4	None	1277	"	1012	13·9	12·	Edema increased
" 5	"	1717	"	1011	21·5	18·1	
" 6	"	2101	"	1010	20·1	13·9	
" 7	"	1717	"	1010	17·6	18·1	
" 8	"	1533	"	1014	18·5	11·	
" 9	"	1476	"	1015	16·8	19·1	Not able to work
" 10	"	1760	"	1014	17·6	7·9	Weight 13st. 11lbs.
" 11	Mag. Sulph. } after meals 20	1604	"	1018	23·4	8·5	
" 12	thrice daily	1590	"	1017	23·5	19·7	
" 13	"	1604	"	1017	25·6	24·1	Slightly purged twice
" 14	"	2158	"	1014	28·	18·8	
" 15	"	2314	"	1014	26·9	12·	
" 16	"	2186	"	1015	25·9	11·7	
" 17	"	2782	"	1014	26·	39·9	Weight 13st. 3lbs.
" 18	Mag. Sulph. } 20 before meals	2200	Acid	1014	26·1	31·6	
" 19	thrice daily	2058	"	1017	29·5	31·	
" 20	"	1973	"	1017	27·	38·	
" 21	"	1916	Alk.	1016	23·6	26·4	Mentally not so well
" 22	"	2371	"	1017	30·8	20·	

TABLE III.—(Continued.)

Date.	Medicine.	Urine passed in 24 hours.	Reaction.	Specific gravity.	Urea.	Albumen.	REMARKS.
1889.		C. C.			Grms.	Grms.	
Sept. 23	Grains. thrice daily	2087	Alk.	1018	27.6	11.1	
" 24	"	1760	Acid	1021	28.5	18.8	Weight 12st. 11lbs.
" 25	20 after meals } concentrated }	1689	"	1019	28.1	18.8	Œdema almost gone
" 26	"	1732	"	1018	25.6	42.4	Commenced work
" 27	"	1504	"	1018	20.6	20.5	
" 28	"	2101	Alk.	1016	23.9	31.6	
" 29	"	2371	"	1015	26.5	20.7	
" 30	"	1817	Acid	1019	26.9	40.1	
Oct. 1	"	1760	"	1018	26.5	33.2	Weight 13st.
" 2	20 before meals } concentrated }	1760	Alk.	1016	22.1	11.6	
" 3	"	2243	Acid	1016	27.1	32.2	
" 4	"	1519	Alk.	1021	25.6	19.4	
" 5	"	1604	"	1019	26.4	23.	
" 6	"	2170	Acid	1018	32.6	35.8	
" 7	"	1930	Alk.	1017	28.6	24.2	
" 8	"	1902	"	1020	32.1	7.7	Weight 12st 12lbs.
" 9	40 concentrated	1817	Acid	1020	26.9	24.8	
" 10	"	1519	"	1020	23.5	22.8	Purged slightly twice
" 11	"	1490	Alk.	1022	23.8	16.1	
" 12	"	1660	Acid	1022	28.2	14.5	
" 13	"	1703	Alk.	1021	25.2	24.4	Purged slightly twice
" 14	"	1774	"	1019	24.3	22.5	
" 15	"	1817	"	1020	23.2	22.2	Weight 12st. 7lbs.; slightly purged twice
" 16	40 double previous } concentration }	1206	"	1021	17.9	16.8	{ Œdema scarcely apparent anywhere
" 17	"	1831	"	1018	28.4	27.6	
" 18	"	1533	"	1018	26.2	22.4	
" 19	"	1689	Acid	1020	25.4	40.6	
" 20	"	2782	"	1010	25.4	16.4	
" 21	"	2143	Alk.	1013	29.3	30.8	
" 22	"	2697	"	1010	25.8	23.5	12st. 10lbs.
" 23	None	2200	Acid	1012	20.	34.7	
" 24	Caffeine 6	2541	"	10 0	26.	38.6	
" 25	"	3180	"	1017	23.2	14.3	
" 26	"	2158	"	1010	14.7	5.1	Micturition increasing in frequency
" 27	"	2924	"	1010	26.6	13.5	
" 28	"	2569	"	1010	20.5	31.4	Thirst considerable
" 29	"	3918	"	1008	26.8	38.6	
" 30	Caffeine 6	3194	"	1006	25.5	28.8	Weight 12st. 12lbs.
" 31	None	3180	"	1009	29.	19.7	
Nov. 1	"	3151	"	1007	24.4	24.4	
" 2	"	4117	"	1007	28.1	29.5	
" 3	"	3393	Alk.	1005	26.3	30.5	Slightly purged
" 4	"	3208	"	1008	14.6	22.1	Some urine lost
" 5	"	3265	Acid	1007	20.8	26.6	
" 6	"	3663	"	1011	25.	42.8	Weight 13st. 4lbs.
" 7	"	3024	"	1007	20.7		
" 8	"	3663	"	1007	25.	29.9	
" 9	"	3492	"	1008	26.1	34.4	
" 10	"	2669	"	1010	15.2	15.4	Some urine lost
" 11	"	2598	"	1010	17.7	13.5	
" 12	"	1902	"	1007	9.5	15.5	
" 23	Tr. Strophanth 7½m.	3336	Alk.	1006	18.2	18.3	No collection made here
" 24	"	3364	"	1008	15.3	17.1	
" 25	"	3251	"	1007	14.8	17.8	
" 26	"	3833	"	1008	18.3	22.6	
" 27	"	2683	"	1010	12.2	38.5	Part urine lost
" 28	"	2072	"	1010	12.7	14.8	Large part of urine lost
" 29	"	752	"	1007	4.2	7.7	Part urine lost



paper, Dr. C. Theodore Williams mentioned a case in which morphine had been given before the diagnosis of eclampsia was made, and apparently, he adds, with benefit, although it was kept back as contraindicated. There was no reference, however, made, in that discussion, to the action of the opiate treatment on the excretion of albumen. The following observation was made to show this action, as well as the effects of the opiate treatment on the urine, in a case of the variety referred to:—

CASE V.—William S., æt. 50, suffering from chronic Bright's, with delusions, accusing his neighbours at home of operating on him with telephones, galvanic batteries, and electric machines. He is big-boned and muscular. There is evidence of an old severe compound fracture of the lower third of both bones of the left leg. After a series of experimental urinary testings, the following method was taken throughout the observation, as throwing down most albumen. To two drachms of urine were added 10m of strong nitric acid, and heated to boiling point. The albumen was filtered, dried, and weighed on filter paper of known weight. There was no attempt made to separate the albumen from the inorganic constituents, the observation being a relative one. The results are detailed on Table III. The patient died on 10th Dec., 1889. The kidneys weighed, right 12oz. and left 12½oz. The lungs were studded with tubercular nodules, and abundant pus cavities here and there.

Dr. Clouston, in his great experience, believes opium to cause loss of appetite and of weight, while a habit or craving is apt to be set up. Undoubtedly such disadvantages do occur; but probably it is undeniable, as was echoed by Dr. Leech at Manchester, that “in sleeplessness due to pain there can be no doubt that no other hypnotic approaches opium in value.” Nasse, in the treatment of psychoses by opium, found benefit from its use in cases of mania of from four to seven or more months' standing.

Under hyoscin it is referred to in such cases.

CASE VI.—Frances L., æt. 30. Puerperal mania. Her sixth child was born eight weeks ago. 4th June, 1889—Weight 119lbs.; hæmoglobin 60 per cent., red cells 3,830,000, white cells ·3 per hæmic unit. 15th June—She is restless, her appetite is poor, and she looks pale. Put on 8m tinct. opii morning and evening. 30th.—Mentally she is very much improved. 8th July—Working in the wards being insufficient, she is sent to the laundry. 18th.—Hæmoglobin 60 per cent., red cells 4,530,000, white about ·2. Weight 134lbs. 18th.—Convalescence is noted as established. She is not very anxious to go home to her husband, who is her second, and apparently unkind to her. 26th Oct.—Weight 141lbs. She is discharged recovered.

Renault recommends opium in asthenic and anæmic cephalalgia, and in cerebral symptoms with chlorosis and anæmia, it bringing to the brain, he says, the necessary quantity of blood.

The late Sir Robert Christison, says Brunton, used to say that, "Not only coryza, but probably all inflammations could be nipped in the bud by opium if given sufficiently early and freely."

Dr. Clouston, in referring to paraldehyde, says :—"If it did no good it did not do any harm. That," he continues, "is a great thing in any drug, if true."

With this expression I conclude and heartily concur.

*Sulphonal*.—Introduced about two years ago, sulphonal is one of the latest, and probably most important hypnotic of the alcoholic series. First prepared by Professor E. Baumann, of Freiburg, and examined and recommended by his colleague, Professor Kast, its physical characters and chemistry have already been well described by others. Clinically its two great physical disadvantages are its insolubility and bulk. To those not familiar with the drug it may be stated that it is crystalline, and may be considered as practically devoid of taste and smell.

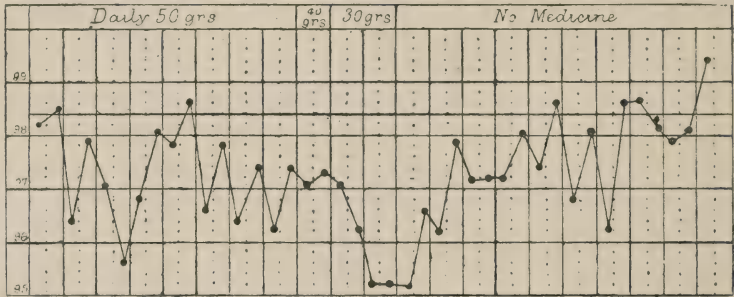
Its solubility is about one in 450 of cold, but slightly more soluble in warm water. Professor Kast has shown it to be slightly more soluble in acid and saline solutions. It is soluble readily in alcohol or ether. It has been given in hot fluids, suspended in gum, and in many other ways.

However administered, it should be first finely powdered. I invariably place it on the tongue, when this is possible, and let it be washed down.

The following variety of cases may help to illustrate the actions of the drug, and its advantages and disadvantages in disease :—

CASE I.—Anchor. T. (described under hyoscin), 2nd July, 1889—He is excited, and in strong rags for the last six weeks, and his habits are dirty and destructive. Put on 15 grains sulphonal morning and evening. 3rd—No change apparent. 4th—He is a little quieter. 5th—His appetite is good, and he is quiet and well behaved. 6th—Improving in his habits and asleep nearly all day. 8th—Still improving, and lies quietly on a bedstead. 9th and 10th—Appetite ravenous. 13th—Sleeps all night and part of the day. His bowels are regular. 21st—He is up to-day, and is quiet, tidy, and respectable. Sulphonal discontinued. 28th—Relapsed again, and is in bed as wild and untidy as ever. The 15 grains sulphonal twice daily resumed. 15th Aug.—Improved again and up to-day. 20th—Sulphonal discontinued. 25th—Relapsed again. 16th Oct.—In bed still and unimproved. Weight, in strong shirt, 120lbs. As a rule he is noisy all night. Put on 30 grains sulphonal in the evening

and 20 grains in the morning. 17th—Slept  $8\frac{1}{2}$  hours last night. He is quieter to-day and taking all his food. 18th—Slept all night, but is shaky on his legs and inclined to sleep to-day. 19th—He is unable to stand unassisted, but is clean and not destructive in his habits. Sulphonal discontinued. 20th—Getting noisy again, but asleep part of the day. 21st—He has recovered the use of his legs, but is untidy in his habits, and lies quietly until roused. 22nd and 23rd—He is clean, quiet, resting all day, and his appetite is good. 24th—Talkative again at night. Sulphonal in doses of 20 grains in the morning and 30 in the evening resumed. 25th—Restless last night, but quiet to-day. Habits tidy. 26th—Slept six hours last night, but he is restless to-day. 27th and 28th—Clean, and not destructive, and asleep all day except at meals. 29th, 30th, and 31st—Gait ataxic. Weight 121lbs. 1st Nov.—Asleep all day. 2nd—Habits untidy while asleep. 3rd—Never attempts to leave his bed, and sleeps almost continuously. Morning dose reduced to 10 grains. 4th—Morning sulphonal discontinued. He sits in a chair, being unable to stand without assistance, and never speaks unless spoken to. His habits are clean. 5th—Sulphonal discontinued. 6th—Weight 127lbs. Wherever he is placed he never attempts to leave, and never speaks except in answer to questions, and then very briefly. 7th—Slowly recovering the use of his legs. 8th, 9th, and 10th—Slept all night and part of each day. 13th—Weight 137lbs. 20th—Weight 142lbs. 27th—Weight 140lbs. He is up daily,

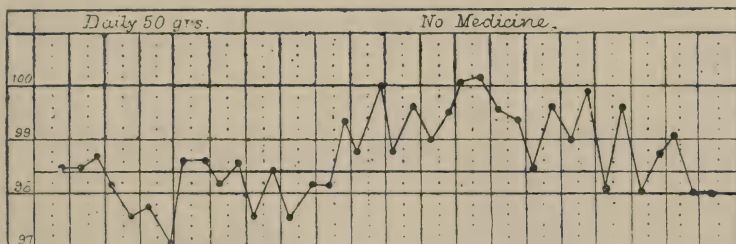


works in the flock room, and goes to our weekly dance, in which he takes an active part, being quite a new experience for him here. 2nd Dec.—Relapsed again, and remains the hopeless chronic maniac. The temperature in degrees Fahrenheit at 9 a.m. and 6.30 p.m. is recorded on the chart from 26th Oct. to 15th Nov.

CASE II.—Arthur H., single, *æt.* 21. Suffering from acute mania. Oct. 14th, 1889—He is sleepless, sometimes violent, destructive, and noisy, stuffing his pockets with rubbish, and looking pale, pasty, and exhausted. Oct. 15th—Weight, 139lbs. Hæmoglobin 82 per cent., red cells 4,940,000, white cells .32. To-day he is put on 30 grains sulphonal in the evening, and twenty in the morning. His habits are dirty. 16th—Slept eight hours last night



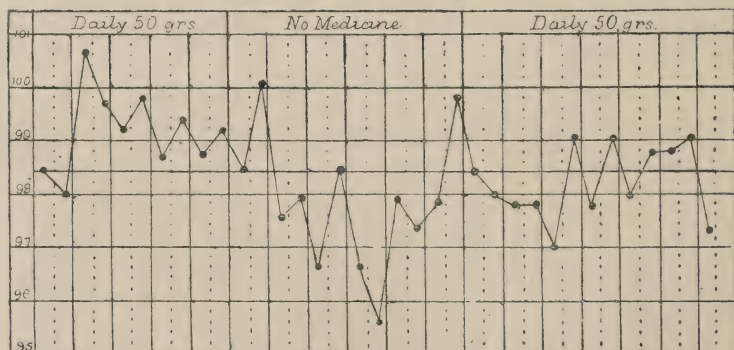
he looks stupid, but is noisy still. Reflexes active. 17th—Slept all night. To-day he is so ataxic as to be sent to bed, saying he feels nervous, seasick, and shaky. 18th—Slept all night, but is unable to stand unaided to-day. Never tries to leave his bed, and is not destructive. Appetite good. Complaining of noises in his ears. Reflexes feeble and slow. 19th—Slept all night. His habits are clean, but he is drowsy and inclined to lie still. Sulphonal discontinued to-day. Superficial reflexes elicited easily, but knee jerk very faint. 20th—Patellar reflexes absent, he slept all night. Nine a.m. shouting for his dinner. He is clean and not destructive. Pulse full and soft. He looks drowsy. 21st and 22nd—Slept all night, but is noisy to-day and stronger on his legs. Complains of humming in his ears. Pupils large, skin moist and clammy, and reflexes still in abeyance. 24th—Reflexes elicited, and he is noisy and destructive again. Sulphonal resumed to-night in doses of 20 grains in the morning, and 30 in the evening. Weight, 139lbs. 25th—Slept  $7\frac{1}{2}$  hours during night, but is still restless. 26th—Slept  $9\frac{1}{2}$  hours last night, and is slumbering all day, but easily roused. Reflexes absent. He is clean and not destructive. 27th—Slept all night and sleeping all day; ataxic, complaining of noise in his ears, and cannot hold the pen or stand unaided. Muscles flaccid, and reflexes exaggerated. He never asks for anything. Habits untidy, especially when asleep. When wakened for his food, he mumbles, "Let me sleep." Intensely drowsy, and soft food is spooned into his mouth. Pulse soft, full, and regular. 29th—Reflexes still increased, right plantar more than left, and the left patellar larger and more active than the right. Asleep day and night, and untidy in his habits. Weight 139lbs. 30th—A pin driven into the muscles of his arm or nose, but no response or sign of waking; when shaken in addition, he takes in a long breath and drowsily opens his eyes. Habits untidy. Sulphonal discontinued. 31st—He is unable to sit or stand without help, and is



sleeping day and night, except when fed. 1st Nov.—Untidy during the night, and sleeping on. 2nd—Still untidy. Can stagger out of bed now, however, and weeps and cries for his mother as if he had overslept himself. 3rd—Slept  $9\frac{1}{2}$  hours last night. Reflexes very faint, patellar scarcely appreciable, and is very infrequent. Still

ataxic in gait, but he is up and dressed, clean, and behaving well. 4th—Appetite good, but he is still emotional. 5th and 6th—Behaving well. Weight 141lbs. 10th—Sleeps well, but undressing himself and noisy all day. Habits clean. 13th—Weight 136lbs. 1st Dec.—Working in grounds and well behaved. The chart shows the morning and evening temperature from 25th October to 13th November.

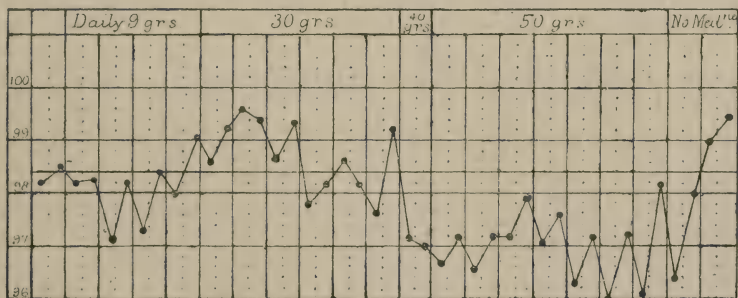
CASE III.—George L., single, æt. 25. Suffering from acute mania. 15th Oct., 1889—He is sleepless, untidy in his habits, and his appetite is poor. Weight in strong shirt 121lbs. Hæmoglobin 90 per cent., red cells 4,880,000. Put on 30 grains sulphonal at night and 20 in the morning. 16th—He slept for 9½ hours last night, and he lies quietly in bed this morning. Pupils large, tongue covered with whitish fur, he is sleepy, but easily roused up, and says he feels giddy and drunk. 17th—Slept all night, stupid, but destroyed his shirt, pupils large, accommodation sluggish, and complaining of impaired sight. 18th—Slept all night. Gait more ataxic than yesterday, lies in bed this morning for the first time. 19th—Patellar reflexes in abeyance, but the superficial ones are present. His habits are untidy, he lies quietly all day, and the sulphonal is discontinued. 20th—Ataxic, but not so drowsy; skin surface warm and moist. Complains of “buzzing” in his ears. He recognizes where he is. 21st—Slept eight hours last night, and is not so shaky on his legs, but is getting destructive again. 23rd—Mischievous, but clean in his habits. 24th and 25th—Slept all night. 26th—Restless all night. The 30 grains sulphonal at night and 20 in the morning resumed. He is up to-day, and helping in the wards, and is clean and tidy. 27th—Slept all night, and is sleeping this afternoon. 28th—Slept six hours last night and is drowsy to-day. Gait ataxic. 30th—Staggering about the ward, is idle, and trying to undress himself. 31st—Gait reeling, and for safety to himself he is ordered to



bed. 1st Nov.—Slept all night, but is restless and destructive to-day. Left patellar reflex is larger than the right, but both

plantars are faint. 2nd—Asleep all day. The temperature chart is from the 15th October to the 1st November. 3rd—Drowsy to-day. There is no response to a pin prick that draws blood, but tickling the sole or ribs elicits instant response. Weight 114lbs. The morning dose of 20 grains discontinued. 5th—He is up to-day and very quiet, his gait is reeling, and he never ventures to move off his chair. 7th—Sulphonal discontinued. 11th—Well behaved, sleeps all night, and as a rule an hour after dinner. 12th—Working daily. 29th—Weight 120lbs. 20th March, 1890—He is discharged recovered.

CASE IV.—William H., *æt.* 60. Acute melancholia. Sits all day with his hands clasped, determined and depressed, and often quietly groaning "Lost." Appetite poor, skin pale, dry, and parchmented looking. He is big, but thin and poorly nourished. Aug. 21st, 1889—Put on one drachm paraldehyde as a night draught. Aug. 26th—He made a determined effort to cut his throat to-day. Oct. 14th—Weight 169lbs. He is now in bed, where he sits more than half the night. Oct. 21st—Weight 167lbs. Oct. 22nd—Put on six grains sulphonal at night and three grains in the morning. 23rd—Slept at intervals during night. 24th—Slept for  $3\frac{1}{2}$  hours. 25th—Slept at intervals, a total of  $5\frac{1}{2}$  hours. 26th—Slept 3 hours. 27th—Slept  $4\frac{1}{2}$  hours. 28th—Slept  $3\frac{1}{2}$  hours. Weight 168lbs. 29th—Slept  $2\frac{1}{2}$  hours. Dose increased to 20 grains at night and 10 grains in the morning. 30th—Slept none all night. 31st—Slept at intervals, a total of  $6\frac{1}{2}$  hours. 1st Nov.—Slept a little. 2nd—Slept a total of  $8\frac{1}{2}$  hours. 3rd—Slept  $4\frac{1}{2}$  hours. 4th—Slept 3 hours. He is given 40 grains sulphonal to-night. Weight 168lbs. 5th—Slept a total of  $6\frac{1}{2}$  hours. Dose increased to 50 grains in the evening. Complaining of noises in his ears. 6th—Asleep at intervals. 7th and 8th—Slept  $6\frac{1}{2}$  hours each night. 9th—Slept  $8\frac{1}{2}$  hours. Tongue whitish and bowels constipated. 10th—Slept 9 hours. He cannot stand unaided. The reflexes are exaggerated. Weight 170lbs. 11th—Slept all night. Sulphonal discontinued. 12th and 13th—Slept very little. Temperature record is from 24th Oct. to 13th Nov.



14th—Sleeping better, but often complains of pain over abdomen. 15th—Wakeful. 16th and 17th—Very restless. 18th—Weight

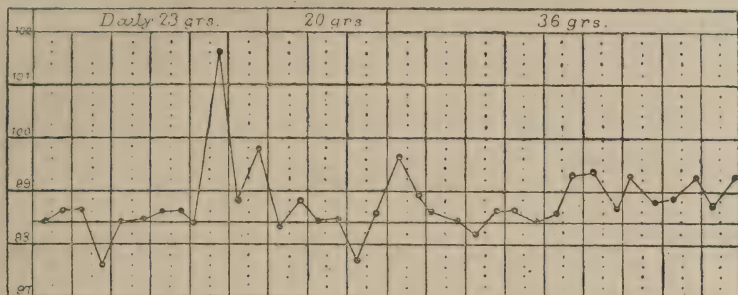


162lbs. 19th—Slept 4 hours. 20th—Sick last night, but slept 5 hours. 25th—Weight 170lbs. From 21st to 28th he slept fairly well. 29th and 30th—Wakeful all night. 1st Dec.—Slept fairly well. 10th—Intensely miserable. Jan., Feb., and Mar., 1890—He is in bed. In April his weight is 136lbs., and, if possible, he remains more miserable than ever.

CASE V.—Richard T., married, æt. 45. He is gloomy, suspicious, and depressed, and the mental portion of his admission certificate begins with "sleeplessness." His appetite is poor, but he is well nourished, tall, and powerful. Feb. 24th, 1889—Gets 60m paraldehyde every evening. 26th—Sleeps better at night. 30th March—The almost invariable night report is "restless most of the night." 4th April—Works in the wards, but says he is not so well in his mind. 14th April—Still restless, and his cheeks are, as a rule, high coloured or ruddy, with a cyanotic tinge. The paraldehyde is discontinued to-day at his own request. 6th June—Very depressed and says he is to be "carried down by a concealed stair and thrown into a vacuum below." Goes to the flock room, but sits all day with his face buried in his hands. Put on 15 grains sulphonal morning and evening. Weight 162lbs. 20th—He sleeps better and his appetite is good, but complains of feeling stupid and giddy. Dose increased to 30 grains twice daily. Weight 166lbs. 21st—He had to be assisted from the flock room to-day, being unable to walk or leave his chair; a slight push would unseat him. When asked a question he either shakes his head or says, "Don't know." His memory seems asleep and requires rousing up. Tongue moist, but covered with a whitish fur; pupils much dilated. Pulse 60, regular and full, and respiration 18. He seems unable to speak, and is shivering as if suffering from intense cold. He is sent to bed and says, "I feel quite stupid and scarce knows what am doin'." In a letter to his wife inco-ordination is very apparent, for he repeats himself and spells much as he speaks. This is very marked when compared with letters written before the sulphonal was begun and after it was discontinued. 5th July—Almost constantly asleep, except when roused for meals. Sulphonal discontinued. 7th—Locomotion steadier, and he is up daily. 13th—His appetite is good, he is bright, expresses no delusions, and sleeps well. 12th Aug.—Working in the grounds. 20th Aug.—Discharged recovered.

CASE VI.—Eleanor L., æt. 19. Suffering from puerperal mania. Her first child is just six weeks old. 13th Oct., 1889—She is untidy in her habits and quite idle. 16th—Weight, dressed, 112lbs. Hæmoglobin 60 per cent., red cells 2,880,000, white cells 4 per hæmic unit. 24th—She is on 10 grains sulphonal in the evening and three grains in the morning. She is clean in her habits, up daily and sewing a little, but very quiet. 30th—Put on 20 grains at night, but from the 2nd to the 13th November she is getting 30 grains at night and six in the morning. Temperature record from 24th Oct. to 10th Nov. She is much improved mentally and bodily. 14th—Sulphonal dis-

continued. She works in the laundry. 19th Feb.—Discharged recovered.



CASE VII.—E. S., æt. 40. Puerperal maniac. The drug was blamed for giving her diarrhœa; and discontinued on that account, but she also made a perfect recovery.

CASE VIII.—James H., æt. 29. Suffering from acute mania. Tried with sulphonal and paraldehyde, both of which appeared to benefit him. The further record of this case is given on Table IV.

CASE IX.—William W., æt. 53. In the advanced second stage of general paralysis. Gait very ataxic, speech characteristic, difficult, and indistinct. He, too, had a course of sulphonal and paraldehyde as detailed on Table V. When on his third successive 50 grain dose of sulphonal, the paralysis became almost complete, and the drug was at once discontinued.

CASE X.—Louisa S., single, æt. 38. She is sleepless, suspicious, and living in the expectation of something that is going to happen to her, such as to be poisoned, destroyed, mesmerised, or shaken up with electricity. She is thin and poorly nourished, and looks as if she lived on tea. 17th Oct.—Weight 101lbs. She is restless and sleeps very little. She is put on 10 grains sulphonal. 18th Oct.—Slept for 8 hours. 19th—Slept for  $8\frac{3}{4}$  hours. 20th and 21st—Restless all night. 22nd—Sewing in the morning and reading in the afternoon. 23rd—Slept for  $9\frac{1}{2}$  hours. Sulphonal increased to 20 grains. 24th—Restless all last night and sick to-day. 30th—She is refusing her food. 2nd November—Appetite very poor. Sulphonal discontinued. 3rd—She is sick and in bed to-day, and looks pale, cold, and collapsed. Pupils very large, and tongue covered with whitish fur. 6th—Appetite very fair. January, 1889—Much improved in every way.

From the tables it may be observed that the phosphates in the urine are increased by small doses of sulphonal, but diminished by large ones. The urea is probably, if anything, similarly influenced, as was also observed by Dr. Gordon (Aberdeen), who, however, concludes from his experiments that the phosphates are diminished, which, in my experience, takes place only under large doses.

TABLE IV.

JAMES H.; æt. 29; Acute Mania.

"DIURNAL"—6.30 A.M. TO 6.30 P.M.										"NOCTURNAL"—6.30 P.M. TO 6.30 A.M.										IN THE 24 HOURS.				
Date.	Diet.		Temp.		Specific Gravity.		Reaction.		Urine passed for the 12 hours.	Medicine.	Date.	Grains.		C.C.	Reaction.	Specific Gravity.	Phosphates.		Urea.	Sleep.	Temp.	Pulse.		Resp.
	Solids.	Fluids.	9.15 a.m.	2 p.m.	9.15 a.m.	2 p.m.	9.15 a.m.	2 p.m.				9.15 a.m.	2 p.m.				9.15 a.m.	2 p.m.				7 p.m.	7 p.m.	
1890	Grms.	C.C.	Grms.	Grms.	Grms.	Grms.	Grms.	Grms.	C.C.	Grains.	April 25-26	None	816	Acid	1017	1.99	18.2	5						
Apl. 25	1219	1987	748	Acid	1013	1.42	12.8		550	"	26-27	"	550	"	1023	1.59	14.4	4						
" 26	"	"	630	"	1022	1.57	18.9		674	"	27-28	"	674	"	1017	1.38	13.3	4						
" 27	"	"	784	"	1018	1.56	13.9		986	"	28-29	"	986	"	1014	1.19	14.3	4						
" 28	"	"	800	"	1014	.88	11.3		660	"	29-30	"	660	"	1014	1.19	14.3	4						
" 29	"	"	884	"	1015	1.57	16.5		770	"	30-31	"	770	"	1020	1.64	17.5	4						
" 30	"	"	462	"	1027	1.24	15.2	99.	638	"	May 1-2	"	638	"	1013	1.02	14.5	4						
" 1	"	"	1664	Alk.	1010	.84	17.1	99.	1484	"	2-3	"	1484	"	1018	1.24	19.6	2						
" 2	"	"	900	Acid	1016	1.18	16.4	98.4	558	"	3-4	Sulphonal 10	558	"	1013	1.24	19.6	2						
" 3	"	"	654	Alk.	1020	1.17	14.3	98.6	1400	"	4-5	"	1400	"	1007	1.23	14.	7						
" 4	"	2100	390	"	1022	.68			716	"	5-6	"	716	"	1015	1.32	16.3	8						
" 5	"	"	600	"	1016	.66	10.6	98.6	1450	"	6-7	"	1450	"	1007	.9	13.2	7						
" 6	"	"	794	"	1015	.67	9.9	99.4	1030	"	7-8	"	1030	"	1011	.82	11.2	6						
" 7	"	"	832	Acid	1015	.83	15.1	98.6	872	"	8-9	"	872	"	1009	1.04	10.	5						
" 8	"	"	1084	"	1011	.66	12.	98.4	574	"	9-10	"	574	"	1017	1.12	13.1	8						
" 9	"	"	878	"	1013	.96	13.	98.6	890	"	10-11	"	890	"	1012	1.06	11.1	8						
" 10	"	"	882	Alk.	1016	.97	14.9	98.8	810	"	11-12	"	810	"	1013	.95	13.8	8						
" 11	"	"	640	Acid	1019	.91	13.8	99.2	740	"	12-13	"	740	"	1015	1.08	15.	6						
" 12	"	"	430	Alk.	1015	.43	8.1	99.	780	"	13-14	"	780	"	1011	.93	12.1	4						
" 13	"	"	838	Acid	1013	.93	14.7	99.	646	"	14-15	"	646	"	1018	1.31	12.5	4						
" 14	"	"	984	Alk.	1012	.86	12.7	98.2	630	"	15-16	"	630	"	1008	.97	9.3	7						
" 15	"	"	408	"	1022	.64	11.9	98.8	492	"	16-17	"	492	"	1006	.24	3.4	9						
" 16	"	"	638	"	1015	.70	12.6	99.2		"		"												



TABLE IV.—(Continued.)

"DIURNAL"—6.30 A.M. TO 6.30 P.M.											"NOCTURNAL"—6.30 P.M. TO 6.30 A.M.											IN THE 24 HOURS.								
Date.	Diet.		Temp.	Pulse.		Resp.	Urine passed for the 12 hours.	Reaction.	Specific Gravity.	Phosphates.	Urea.	Temp.	Pulse.		Resp.	Quantity of Urine.	Phosphates.	Urea.												
	Solids.	Fluids.		7 p.m.	7 p.m.								7 p.m.	7 p.m.																
1890	Grms.	C.C.					C.C.			Grms.	Grms.	Hours.				C.C.	Grms.	Grms.												
May 17	1134	2100	1330	Alk.	1011	1.33	16.4	97.6	98.5	72	88	24	24	May 17-18	Sulphonal	50	52	Acid	402	Alk.	1011	.43	1.3	10	98.2	76	24	1382	1.44	20.7
" 18	1219	"	"	"	1015	1.26	14.7	98.4	98.4	72	80	22	22	" 18-19	"	"	402	Alk.	482	Acid	1011	.72	9.1	9	98.4	76	24	1338	1.69	19.5
" 19	"	"	"	"	1018	1.9	8.5	98.8	97.7	97	78	20	18	" 19-20	None	"	492	Acid	584	"	1015	.73	10.1	8	97.6	66	20	1088	2.62	17.6
" 20	"	"	"	"	1013	1.4	16.6	98.2	97.8	97	68	22	18	" 20-21	"	"	584	"	934	"	1015	.73	10.1	8	98.8	70	21	1862	2.13	26.7
" 21	"	"	"	"	1017	1.67	16.7	98.8	98.8	98	84	20	24	" 21-22	"	"	816	"	934	"	1015	1.49	19.1	8	98.4	76	22	2062	3.16	25.8
" 22	"	"	"	"	1011	2.49	8.5	98.4	99.6	80	92	24	24	" 22-23	Paraldehyde	60	816	Alk.	816	Alk.	1015	1.29	14.5	6	99.5	84	24	1914	3.78	23.8
" 23	"	"	"	"	1021	1.53	21.3	98.8	99.7	72	84	24	22	" 23-24	"	"	No	Nocturnal	No	Nocturnal	1015	1.29	14.5	4	98.6	72	20	1154	1.53	21.3
" 24	"	"	"	"	1016	"	9.1	99.6	99.6	88	88	24	22	" 24-25	"	"	No	Nocturnal	No	Nocturnal	1016	"	"	4	99.5	84	22	672	"	"
" 25	"	"	"	"	1030	"	25.5	99.2	99.2	74	80	22	26	" 25-26	"	"	urine passed	urine passed	urine passed	urine passed	1030	"	"	6	98.8	64	21	1030	1.64	"
" 26	"	"	"	"	784	"	25.9	98.8	98.8	64	68	20	20	" 26-27	None	"	438	Acid	438	Acid	1020	.98	12.2	4	98.2	60	21	1222	2.43	38.1

NOTES TO TABLE IV.

April 25th. Very talkative, restless, and idle, but habits clean.  
 April 26th. Weight, 9st.  
 May 2nd. Very restless at night.  
 May 6th. Sleeps better.  
 May 9th. Appetite good.  
 May 13th. No change.  
 May 17th. Slight ataxia in the morning.  
 May 18th. Slept two hours to-day.  
 May 20th. Going about saying he is drunk.  
 May 21st. Last of ataxia gone to-day.  
 May 23rd. Not sleeping so well.  
 May 24th. Refuses to pass urine during the night.  
 May 26th. Restless at night.

TABLE V.

WILLIAM W., æt. 53; Advanced Second Stage of General Paralysis.

"DIURNAL"—6.30 A.M. TO 6.30 P.M.

"NOCTURNAL"—6.30 P.M. TO 6.30 A.M.

Date.		Diet.		Temp.		Pulse.		Resp.		"NOCTURNAL"—6.30 P.M. TO 6.30 A.M.										IN THE 24 HOURS.								
		Solids.	Fluids.	Urea.	8.40 a.m.	2.15 p.m.	8.40 a.m.	2.15 p.m.	8.40 a.m.	2.15 p.m.	Temp.	Pulse.	Resp.	Quantity of urine.	Grms.	Phosphates.	Grms.	Urea.	Sleep.			7.20 p.m.	7.20 p.m.					
1890		Grms.	C.C.	Reaction.	Specific Gravity.	Phosphates.	Grms.	Urea.	Grms.	Phosphates.	Grms.	Urea.	Reaction.	Urine passed for the 12 hours.	C.C.	Grains.	Medicine.	Date.										
Apr. 25	871	2100	440	Acid	1021	.92	9.7										None	April 25-28										
" 26	"	"	904	"	1015	1.9	14.4										"	" 26-27										
" 27	"	"	884	Alk.	1016	1.41	13.7										"	" 27-28										
" 28	"	"	1470	"	1013	1.61	16.7										"	" 28-29										
" 29	"	"	712	Acid	1018	.76	11.8										"	" 29-30										
" 30	"	"	58	"	1023	1.71	13.2	98.6	98.6	62	62	16	16				"	" 30-1										
May 1	"	"	512	"	1019	.51	11	98.2	98.6	62	62	16	16				"	May 1-2										
" 2	"	"	952	Alk.	1014	1.02	13	98.3	98.4	60	61	16	16				"	" 2-3										
" 3	"	"	880	"	1015	1.08	12	98.2	98.6	62	68	16	16				"	" 3-4										
" 4	"	"	851	"	1016	.97	15	98.6	98.8	68	60	17	17				"	" 4-5										
" 5	"	"	711	Acid	1017	1.06	14.5	98.6	98.8	64	60	16	17				"	" 5-6										
" 6	"	"	640	"	1020	1.11	14.3	98.7	98.6	60	66	16	17				"	" 6-7										
" 7	"	"	686	"	1013	.92	11	98.4	98.6	60	66	16	16				"	" 7-8										
" 8	"	"	942	Alk.	1014	1.41	16.3	98.4	97.4	72	60	16	18				"	" 8-9										
" 9	"	"	1094	Acid	1013	1.23	13.2	98.2	98.4	60	66	16	16				"	" 9-10										
" 10	"	"	900	"	1013	1.32	14.9	97.6	97.6	60	66	16	16				"	" 10-11										
" 11	"	"	1032	"	1013	1.29	15.5	98.2	98.8	62	64	18	18				"	" 11-12										
" 12	"	"	1196	Alk.	1015	1.41	23.1	98.8	99.2	70	68	18	19				None	" 12-13										
" 13	"	"	538	Acid	1018.5	1.21	13.2	98.6	98.6	68	76	15	16				"	" 13-14										

TABLE V.—(Continued).

"DIURNAL"—6.30 A.M. TO 6.30 P.M.												"NOCTURNAL"—6.30 P.M. TO 6.30 A.M.												IN THE 24 HOURS.			
Date.	Diet.		Temp.		Pulse.		Resp.		Date.	Medicine.	Urine passed for the 12 hours.	Reaction.	Specific gravity.	Phosphates.	Urea.	Sleep.	Temp.		Pulse.		Resp.	C.C.	Quantity of urine.	Grms.	Grms.	Urea.	
	Solids.	Fluids.	8.40 a.m.	2.15 p.m.	8.40 a.m.	2.15 p.m.	8.40 a.m.	2.15 p.m.									7.20 p.m.	7.20 p.m.									
1890									1890	Grains.	C.C.					Hours											
May 14	1871	2100							May 14-15	None	1306	Alk.	1010	1.80	15.7	9	98.6	64	16	98.6	64	16	2212	2.74	33.2		
" 15	"	"							" 15-16	Sulphonal 50	1180	"	1013	1.32	16.4	9	99.	72	21	99.	72	21	2154	2.83	29.5		
" 16	"	"							" 16-17	"	1380	"	1010	1.86	13.8	10	98.8	70	20	98.8	70	20	2344	2.88	29.6		
" 17	"	"							" 17-18	"	950	Neut	1009	86	10.1	11	98.2	66	18	98.2	66	18	1861	2.13	24.7		
" 18	822	1530							" 18-19	None	630	Acid	1015	1.10	11.3	18	98.4	68	16	98.4	68	16	940	1.77	15.1		
" 19	1871	2100							" 19-20	"	622	"	1012	.77	10.5	13	98.8	66	17	98.8	66	17	1414	2.04	22.9		
" 20	"	"							" 20-21	"	1038	"	1010	.88	11.6	11	97.8	62	16	97.8	62	16	2012	2.48	31.8		
" 21	"	"							" 21-22	"	1480	"	1007	1.11	17.5	9	98.4	66	16	98.4	66	16	1944	2.02	26.5		
" 22	"	"							" 22-23	Paraldehyde 60 m	956	Alk.	1009	1.22	11.9	10	98.4	58	16	98.4	58	16	2456	2.84	30.7		
" 23	"	"							" 23-24	"	60	"	1400	Acid	1005	.84	14.3	10	97.6	58	16	2028	1.76	29.8			
" 24	"	"							" 24-25	"	60	"	1000	"	1011	.74	15.5	10	98.4	58	16	1444	1.75	28.6			
" 25	"	"							" 25-26	"	60	"	1464	Alk.	1007	.80	13.8	9	98.4	58	16	2520	2.09	29.6			
" 26	"	"							" 26-27	None	840	Acid	1007	1.07	13.6	9	98.2	58	16	98.2	58	16	1970	1.69	23.9		

## NOTES TO TABLE V.

- April 25th. Weight 10st. 7lbs.  
 April 26th. Appetite ravenous.  
 April 28th. Too ataxic to be employed.  
 April 30th. Nocturnal urine lost.  
 May 5th. Resting more.  
 May 9th. Sleeps well, is quiet, and very facile.  
 May 17th. Slept two hours during the day.
- May 18th. Some urine lost; habits untidy; slept nearly all day, and cannot walk without support.  
 May 20th. Habits tidy to-day.  
 May 22nd. Sulphonal effect gone.  
 May 24th. Sleeps well, and is otherwise as usual.  
 May 26th. Weight 11st. 8lbs.



The case Henry T., already referred to, had an intoxicated gait, but his speech was stammering and slow, and from his letter-writing, his ideation seemed to share in the inco-ordination. He wrote as he spoke, and probably as he thought, for there is an attempt to put this on paper—by repeating himself and spelling the words much as he spoke them; in short, his writing is a phonetic representation of his speech. Inco-ordination was one of the symptoms recorded by Professor Kast. In his experiments on dogs, this observer records their intoxicated and drowsy behaviour, and traces the activity of the drug to the central nervous system, especially the cerebrum. Dr. Leech, in his paper on “Recently Introduced Hypnotics and Analgesics” (“British Medical Journal,” 2nd Nov., 1889), refers to the muscular inco-ordination, quoting the similar observation of Bornemann, Fischer, Burnett, Rehm, and Perregaux—the latter recording ataxic disturbances of fine movements of the hand, while Fischer, in referring to the ataxia, refers also to the speech becoming affected. While this, however, comes near to the letter-writing character, the literature, as far as I know, contains no reference to it, or to what seems like the ideational stammering. When well under the influence of the drug patients experience the helplessness, motor difficulties, and, to a less extent, the mental confusion of intoxication, without, however, much of its hilarity or sense of well-being. They appreciated, and frequently expressed this, irrespective of their mental condition, for the wild chronic maniac, who was never coherent on anything else, in response to the usual salutation, answered “drunk” or “tipsy.”

*Small or medium doses.—The circulation.*—The giddiness sometimes complained of is apparently a result of the same cause, and probably not proceeding from a circulatory disturbance. Comparison of the strength and frequency of the heart's action before, during, and after the observation was discontinued, show that in large doses the drug has an action on the heart, opposed to that of digitalis. Beyond, however, an apparent softening of the pulse, no other action is observed in doses sufficient to aid sleep and make the action of the drug very apparent. This pulse-softening is due probably, in part, to the warm, moist skin surface from vaso-motor dilatation, as is seen in natural sleep. Dr. Leech found that sulphonal had a local dilating influence on the vessels in cold-blooded animals, and recommends its use when the circulation is depressed. Dr. Cranstoun Charles found that arterial pressure was slightly lowered, though, he says, in three cases

a subsequent slight rise was noticed. In these doses, however, the heart is not apparently affected beyond the softening of the pulse, and a probable slightly diminished frequency as a result.

*Temperature and respiration.*—There is at first reduction of temperature, as observed from the tracings, which, however, soon recovers itself, going above the normal—an action, as far as I can find, not recorded by any previous observer. Stockman, in his report on the coca alkaloids, observes that Ott, experimenting on himself with cocaine, found a rise of pulse and temperature. Mosso also found, with the same drug, an increase of body temperature; and considers cocaine the most energetic drug yet known possessing this action.

Reichert found that division of the spinal cord prevented this rise, showing that the action is of central origin.

To sulphonal, therefore, may be accorded a place on the but short list of substances possessing what may be called a pyretic action.

Respiration at first becomes somewhat less frequent, but deeper; then coincident with the rise in temperature and vasomotor changes, it becomes again frequent, but of regular rhythm.

*Reflexes.*—The skin and tendon reflexes become increased, but on continuing the same dose, gradually subside, and in some cases the patellar reflex eventually disappears altogether. Shick observes that sulphonal sometimes depresses and sometimes exalts reflex excitability; while Gordon, in a recent paper ("British Medical Journal," 29th March, 1890), found the reflex function of the spinal cord reduced in frogs. There is a gradual increase in the motor disturbances. The gait is of a drunken type, going from slight inco-ordination to staggering, reeling, and, on large and continued doses, entire suspension of voluntary movements. The conjunctival, skin, tendon, and plantar reflexes, when the patient is asleep, and for some time under the influence of the drug, are frequently abolished, but that of the nose, while seldom abolished, is often faint and infrequent.

*Mental and sense phenomena.*—Some patients, when not sufficiently under the influence of the drug to cause sleep, expressed themselves as nervous, shaky, and sea-sick. The pupils become dilated and sluggish. Some, on being under the influence of the drug for a week or more, complained of defective vision, and others of seeing colours. The senses of taste and smell are not affected. Noises in the ears were an invariable complaint, the majority describing it as buzzing,

others ringing; a female melancholiac that her head was "queer;" another, that her head felt as if made of wood; while a third complained of hearing voices; but all the three complained of "queer things" before. Hallucinations are, however, referred to by Bornemann, who records that his patient thought he had four arms, four hands, and two heads. This probably was a form of diplopia, which this patient is recorded as having had. The sense of hearing seems acute, out of all proportion to the other senses, more especially when the patient is asleep. The majority said they did not dream at all; others had dreams of an agreeable kind, such as dreams of home and flower gathering. A male acute melancholiac complained of disagreeable dreams when on doses of 40 grains, but would not tell their nature. A young maniac, who had been pricked with a pin when asleep and then roused up, said he was dreaming of lions and tigers.

In the skin-sense there is a short initial hyperæsthetic stage, which is soon lost, however, and, as will be seen further on, gives place to a well-marked analgesia on larger doses. It may be observed here that sulphonal disputes the claims of quinia to a separate *ism*, for there is seen, in what one might call sulphonalism, many of the phenomena of cinchonism. To the maniac, with robust circulation, or hyperæmic conditions, it seems to bring rest, while in melancholia, with weak circulation, or brain anæmia, the gloom is frequently intensified, and there may be a stupor superadded, which often obscures the original condition, but which fortunately always disappears on withdrawing the drug.

*Digestion and the gastro-intestinal tract.*—The appetite was never in any case impaired, but as a rule improved, and in some cases became excessive and ravenous. The case of Louisa S. may be regarded as the exception, and an example of what may occur in the case of an anæmic brain and feeble circulation, but this probably is not an unmixed anorexia due altogether to sulphonal, as she was sent here partly for refusing her food. This variety approaches what one might call the anorexia already recorded by others. Sickness was rare, but was more frequent in the depressed than in the exalted. The tongue of sulphonal is probably a typical one, and, as a rule, is covered with a milky white fur, as if the organ had its first coating of white-wash; is always moist, however, and the saliva seems increased. In some cases there is diarrhœa, more frequently in females than in males, but as a rule the bowels are not at all affected.

*Large doses.*—When large and continuous doses are given the patient may sleep on almost day and night; the muscles become quite flaccid, and locomotion impossible. If the drug be pushed further, voluntary power subsides, and when he is roused up for his food, he looks at it, but cannot stretch forth his hand to take it, and when put into his mouth he cannot masticate. There is now considerable skin-anæsthesia, especially to painful impressions, which is most marked during sleep.

Although Dr. Leech, in his paper, refers to sulphonal and other recent hypnotics as possessing little, if any, analgesic influence, Dr. Gordon found peripheral sensation diminished in frogs. The reflexes become now again increased and amplified; a tap on the right patellar tendon is followed at once by a large kick out, with many smaller oscillations, and by smaller but similar movements of the left leg. On stroking the sole, even slightly, the limb is at once drawn up; the untouched one promptly following the movement. His habits now become untidy, and the temperature that has been above the normal goes slowly down, and may touch 95° F. or under. The pulse becomes small, soft, and infrequent; the skin cold and clammy, and respiration slow and shallow, or in some cases slow and gasping. It would seem that the prolonged abeyance of vaso-motor activity, has led to loss of heat, aided by a condition of asystolism, which most of all contributes to the collapse. He is disinclined to speak or be roused up, and a fairly strong shaking elicits but a grunt or monosyllable; then he lapses back again. He is intensely drowsy. If the medicine is now discontinued, the reflexes slowly return in the inverse order—first toning down, then the patellar reflexes probably disappear altogether, but get increased again before resuming the normal. The temperature, too, retraces its course with an inverse curve, going above the normal, and then finally coming down to it, when the muscular and locomotive evidence of the drug disappear, and the patient recovers.

*Antidotal treatment.*—Adam P., æt. 46. Suffering from acute recurrent excitement. From seven p.m. April 24th to seven p.m. April 25th he had no medicine. Quantity of urine passed in these twenty-four hours, 741 c.c., and phosphates 1·35 grammes. From seven p.m. on the 25th to seven p.m. on the 26th—the next twenty-four hours—he had a total of 220 grains sulphonal. Quantity of urine passed, 695 c.c., and phosphates 1·03 grammes. Two hours after the last dose



he became comatose or nearly so, and impossible to rouse up. Pulse over 100, irregular, intermitting, and scarcely perceptible. Respiration very shallow and infrequent; skin surface cold and clammy; muscles quite flaccid; reflexes abolished, and pupils immensely dilated and paralyzed.

A tube was passed into his stomach, it requiring no effort to keep the mouth open, and four ounces of brandy and a pint of strong hot coffee injected. He was then shaken, and roused up by flecking his face, hands, and feet. In less than ten minutes after the stomach injection he was singing at the pitch of his voice, and in twenty minutes more he was up and dressed. He never looked behind him, and the bout was completely cut short.

In addition to the foregoing clinical evidence, the sulphonal antidote receives further confirmation in the case of J. M., æt. 65, who died from pulmonary apoplexy, and had been on sulphonal at the time. The post-mortem examination showed that the heart, which was very flaccid, stopped in diastole. All its cavities were gorged with blood, the valves and vessels atheromatous, and the aortic valves incompetent. The brain contained several ounces of clear serum, with a large part of the falx cerebri ossified.

The whole evidence, therefore, points to the condition as that of cardiac failure, or asystolism, with cerebral anæmia.

The indications for treatment, therefore, lie in the speediest and most effective method of stimulating and increasing the cardiac systole—the action of the digitalis group.

*Cumulation.*—The form of cumulation observed by Mairêt accords with my experience. He says that when the patient is saturated with the drug small doses have a soporific influence in keeping it up, which they did not previously. This looks to Dr. Leech, who quotes it, as a cumulative action in the case of sulphonal. I have found in such patients as L. S., a debilitated female, with no very obstinate insomnia, that with small doses of five or six grains at bedtime the effects were almost inappreciable for the first night, but then night after night the sleeping intervals lengthen, and go on doing so for some time, but soon, however, the dose, to keep up its effect, must be increased. But probably there is no cumulative power proof against habit, for sooner or later it overcomes and defeats the storing-up claims of the most cumulative drug. Females, probably, require smaller doses than males, but in my experience this is, however, by no means a rule, for probably sex is no more a determinant of dosage in regard to

sulphonal than it is in regard to other drugs. The cumulative action and potency of the drug is most marked in general paralysis, where its first apparent action is to intensify the ataxia and make the subjects tired. Six noisy and sleepless cases of this variety were given ten grains nightly. Sleep was enjoyed by the majority after the third dose, but rest by all.

The sleep of sulphonal is never sudden, and in ordinary doses never profound, especially to begin with. Rabbas says that sulphonal acts for a longer time than chloral hydrate, and that it will act where paraldehyde fails. Dr. Leech observes that all the hypnotics he refers to fail occasionally to produce sleep.

Dr. Morton ("Brit. Med. Journal," December 14th, 1889) records a case in which sulphonal succeeded in giving relief when morphine caused excitement. These examples go to show that hypnotics, like other drugs, have their characteristic indications, which is probably responsible for much of what appears as idiosyncrasy or sporadic failures. For why! The pathology of insomnia is almost *non est*, and therefore necessarily the whole subject of hypnotics uncertain and highly empirical, if not *in nubibus*.

From the form of cumulation already referred to it will be apparent that the smaller the dose the longer is the soporific influence delayed, but this is also favoured by the vigour of the patient and obstinacy of the insomnia. I agree with Dr. Leech that sulphonal, more than chloral or any other drug, is slow in producing its effects, though sleep may follow from one-half to three-quarters of an hour. A dose, however, that is no more than sufficient to induce sleep at night will, if administered during the day, do no more than keep them in a drowsy condition between sleeping and waking. When well saturated with the drug the effects are apparent from one to four days after it is discontinued. Like Garnier, I prefer large single doses to accumulated small ones. Burnet records cyanosis and a semi-comatose condition in a case after thirty grains, and Wolff the case of a child suffering from chorea, who, after taking four grains of sulphonal four to six times daily for six days, became apathetic and sleepy for many hours, with vomiting and frequent and irregular pulse.

*What is natural sleep?*—Kohlschütter judged of the depth of ordinary nocturnal sleep by the intensity of the noise required to wake the sleeper. Sleep, he found, reaches its maximum within the first hour. Dr. Wilson Phillips, as quoted by Sir Henry Holland, believed that no sleep is healthy but that from which we are easily aroused.

In the sleep of sulphonal the whole sentient surface is slowly but completely cut off from conscious contact with the external world. When well wrapt in this sleep the skin anæsthesia is considerable, while a moderately conversational tone is sufficient to cause the sleeper to expose his pupils, which are much dilated, and but faintly react to a strong lamp-light. According to Rählmann and Witkowski, stimulation of any sensitive surface during sleep causes pupillary dilatation, but no such change, however, is elicited in the sleep of sulphonal. Sir Henry Holland considered that that which is often felt and described as *heavy sleep* is generally, we have cause to presume, the least perfect form of it, proving that it is not natural or complete. "That may be presumed generally the soundest sleep," he observes, "in which the tranquillity of the bodily organs commonly dependent on the will is most complete, and as to the varying effect of stimuli applied to sensation or perception, the other great function of the brain involved in this state." This test he regards as perhaps the most certain, were it not, he says, that we have cause to believe the different senses to be often unequally closed, even at the same moment of time. The unequal closure is very apparent as observed in the sleep of sulphonal. The best proof given by the patient himself of the soundness of his sleep is, says that observer, the absence of consciousness or the recollection of having dreamed, which comes into closest connection with our waking existence. The absence of recollected dreams was to him, however, no proof that no dreams in such cases existed, for he believed, in common with such distinguished men as Aristotle, Sir William Hamilton, and others, that no moment of sleep is without some condition of dreaming, although this is no dogma of modern physiology. When we wish to go to sleep, says Michael Foster, we withdraw our automatic brains from the influence of all external stimuli. From a very different standpoint the monopolism or monotonism of Mr. Braid is a recommendation to much the same effect. Hypnotism or suggestive therapeutics is probably a still further development. Professor Bernheim, in his treatise, says that there is nothing by which to differentiate the induced sleep from natural sleep, although, he observes, suggestion may be realized with or without sleep, for "sleep is not possible in all cases, but the idea of being hypnotized must be present." Dr. Binns, in his "*Anatomy of Sleep*," I think, quoting from Richerand, and referring to the succession in which the organs of the senses are laid to sleep, says: "We hear and understand the

conversation of those around us when we can no longer distinguish their persons." "The organs of the senses laid asleep in succession awake in the same order." Schroff, as quoted by Stockman, in describing the onset of narcosis from cocaine in the frog, says: "One bridge after another which connects the organism with the outer world is broken," until at last "only the heart works on quietly and strongly, caring for the inner organism." These observations show, therefore, that natural sleep, and sleep however induced, are in many of their apparent manifestations very similar phenomena, although experience knows but one sleep of nature, and what is it?

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*Defects in the Working of the Lunacy Act, 1890.\** By R. PERCY SMITH, M.D., F.R.C.P., Resident Physician, Bethlem Royal Hospital.

I feel greatly honoured by being allowed to open a discussion on the working of this Act; but as Bethlem admits more private cases in the year than any other institution in the kingdom, and as the chief alterations in the law concern the admission of private patients, it is perhaps appropriate that the discussion should be opened by someone resident at Bethlem. I feel I cannot do this better than by bringing before your notice facts which have occurred, and if in doing this I weary you, it will be merely a small reflection of the weariness we have experienced in the last six months from this new law.

I will not waste time by further preliminary remarks, but will commence enumerating instances where there has been difficulty or defect in the working of the Act, as far as this hospital is concerned. The difficulties have been grouped according to the clauses of the Act.

*Clause 6 (1).*

"Upon the presentation of the petition the judicial authority shall consider the allegations," etc.

One of the greatest difficulties in the working of the Act, as far as the admission of patients is concerned, has been in getting a justice or magistrate to consider the petition, *e.g.*:

1. Case of L. W. (admitted to Bethlem Hospital, 14/5/90).—Upon presentation of the petition two justices in succession for trivial reasons declined to sign; but did not appoint a time for

\* Read before the Medico-Psychological Association, Nov. 20, 1890.



consideration of the petition. Eventually the first justice was prevailed upon to sign upon a second appeal being made by the petitioner. In the same case the County Court Judge on being applied to certified that the signing would interfere with his judicial functions. This delay caused great anxiety and loss of time to the petitioner. (*Vide* letter of Dr. Outtersson Wood to "British Medical Journal.")

2. Case of K. E. M. (admitted to Bethlem Hospital, 16/6/90).—The patient's father writes to another daughter, June 30, 2 p.m.: "I spent over an hour this morning, but did not get the papers signed. I am going again to Mr. —'s house at 6 p.m." At 6.15 p.m. he writes again: "I write to say that I got Mr. —'s signature this afternoon, having gone to Col. — in vain." The petitioner was a solicitor, who had come up from Herefordshire about his daughter, and who was compelled to waste valuable hours as described above.

3. Case of E. G. (admitted on an urgency order, 6/7/90).—Upon presentation of the petition the first justice applied to refused to sign, but did not appoint a time for the consideration of the petition, and referred the petitioner to the Marylebone Police Court. The petitioner having sent her daughter to the Court with the petition, its consideration was refused as she was not present herself, but no time was fixed for its consideration. A list of four justices acting for Marylebone was given her. Three out of these four were out of town; the fourth refused to sign, and said the stipendiary magistrate was the man to do it. The order was eventually signed by a justice in Lambeth. The petitioner was a widow, whose son was the patient, and the delay and worry was a very unnecessary addition to her troubles. (*Vide* my letter to "British Medical Journal," July 19, 1890.)

4. Case of S. J. A. (admitted on urgency order, 18/8/90).—The petitioner writes from Lewisham: "I have tried my utmost to get the order signed by a justice of the peace for this district. I have called on the three following, and find they are out of town." [Here follow the names.] "I have seen at the — Police Court the magistrate for the day, Mr. —, who informs me that it is his practice not to sign without first seeing the patient. I to-night have seen Mr. —, who also says he will not sign any order unless he first sees the patient, and from what he knows of his brother J.P.'s for this district, they would not sign without seeing the patient." The reception order was not signed till the last possible day of the patient's detention under an urgency order, and the case being an acute

puerperal one, it would have been most detrimental to her to have to leave the hospital. The petitioner was a clerk, who could ill-afford to waste a whole week in this manner.

5. Case of A. E. S. (admitted to Bethlem Hospital under an urgency order, 18/8/90).—The petitioner writes: "I have had to send on Miss S—'s papers to the Isle of Wight, asking Mr. —, the magistrate, to sign and return, for everyone I go to is away from home. We have everything excepting this one signature."

6. Case of W. M. (admitted to Bethlem Hospital, 22/9/90).—The following telegram was received: "Magistrate out. Shall not be able to bring patient till about seven o'clock." This patient had been originally admitted to a private asylum, but the justice who signed was found to be one not specially appointed under the Act, and his signature was therefore invalid, and the patient, who was rapidly improving from a maniacal attack, had to be discharged. He himself went up to the Commissioners, and asked to be allowed to remain as a voluntary boarder; but this was refused, and in a short time he became as bad as ever, was very dangerous, and eventually had to be taken to an infirmary, where he was certified and sent to Bethlem. One may say that the relapse was almost entirely due to the fact that, owing to the improper action of the justice, he had to be discharged too soon.

7. Case of A. S. (admitted to Bethlem Hospital, 23/9/90).—The petition had been taken to the sitting magistrate at a Police Court. He refused to sign unless the medical men were present who had certified, but did not appoint a time for the consideration of the petition. Eventually the order was signed by a justice of the peace, delay having been caused in the admission of a maniacal case.

The clause says, "the judicial authority *shall* consider," etc. Yet in some of the cases given above there has been refusal to consider the petition for various reasons not mentioned in the Act. In the case of stipendiary magistrates, it would seem that even if the consideration of the petition at the time of presentation interferes with the proper exercise of other judicial functions, yet a time ought to be fixed for its consideration in accordance with the clause; and it should not be summarily dismissed.

*Clause 6 (2).*

"The judicial authority . . . may . . . visit the alleged lunatic." In two cases admitted here on urgency orders the

patients have been much alarmed at the visit of the justice to the hospital for the purpose of seeing them before signing the reception order, one of them thinking she was to be sentenced to something, and the other that she was to be made a pauper lunatic. In both the bad impression remained for days and added to the patient's misery.

*Clause 7.—Dismissal of Petition.*

It would be well to have a statement as to what is considered to be the difference between dismissal of a petition [Clause 7 (1)] and refusal to make a reception order [Clause 7 (2)], and whether, in the latter case, a notice ought to be sent to the person in whose charge the patient is, where the alleged lunatic is detained under an urgency order. Magistrates and justices have refused to sign reception orders without giving any statement in writing to the petitioner of the reasons [Clause 7 (1)], and for other reasons than interference with the exercise of other judicial functions.

*Clause 8.—Right of lunatic to be examined by judicial authority.*

In cases where it cannot be certified that the exercise of the right of a patient to see a judicial authority is prejudicial, but yet he is in such a mental state as to be unable to know what he is doing, serving him with the notice of right to a personal interview with a judicial authority seems to be entirely superfluous, and needlessly adds to the abundant red tape provided by the Act. It is often difficult to decide whether it is or is not prejudicial to a patient to be seen by a justice. One female patient, who was served with the notice of right, was confused and worried about it for a week. Another patient, a general paralytic, was very much worse after the interview with the justice. In one case the notice of desire to see a justice remained unopened in its registered envelope for two weeks at the office of the justices' clerk of the petty sessional division in consequence of his absence from town. The justice subsequently made two visits to the patient at intervals of about three weeks. All this time the patient was annoyed by the delay, and the question was kept unsettled in his mind as to whether he was rightly detained.

*Clause 9 (1).—Jurisdiction of judicial authority limited to place where the patient is.*

Cases where difficulty has arisen under this limited jurisdiction will be mentioned in the consideration of Clause 35.

*Clause 9 (2).—Power of judicial authority to summon and examine witnesses.*

Case of A. S. (admitted to Bethlem Hospital, 23/9/90).—The sitting magistrate at a Police Court had refused to sign the reception order unless the medical men were present *to be put on oath*. This hardly seems to be a legitimate reason for refusing to sign, as by Clause 28 (4) every medical certificate for the purposes of the Act is equivalent to evidence on oath.

There appears to be nothing in the Act except perhaps the last phrase of this section, to justify a charge being made before the signature is obtained, or in connection with the process, yet in the cases of—

(1) C. F. T., reception order made at Bow Street, 19/8/90, the petitioner was made to pay 2s. for a stamp;

(2) S. E. C., reception order signed 28/8/90, at North London Police Court, the same thing occurred;

(3) A. M. D., reception order signed at Croydon, 13/9/90. Petitioner was asked by the justices' clerk if he was prepared to pay 11s. The order was signed on his promising to send the money.

These facts were communicated to the Lord Chancellor and his opinion asked on the legality of the charges, and since then a letter has been received from the Home Secretary saying:—  
“As regards the first and second cases mentioned in your letter that the reception order in these cases was properly chargeable with a fee of 2s. as being ‘an order directed by Statute’ under the schedule of fees to be taken at the Metropolitan Police Courts, which was authorized by the Secretary of State in 1874. As to the third case, it is presumed that the charge was made under the table of fees approved in April last, and now in force in the Borough of Croydon, though the Secretary of State has no information as to the particular items making up the sum of 11s. charged.”

A similar charge of 11s. has been made at Croydon in a subsequent case.

These new charges may be added to the burdens laid on the relatives of private patients by the working of the Act.

*Clause 10.—Appointment of justices to make reception orders.*

The number of justices specially appointed appears to be quite inadequate. It is almost impossible to properly represent the serious loss of time and additional worry caused to the relatives of patients and officers of the hospital by the almost



complete absence from town of justices of the peace during the holiday season. It requires to be seen by those who have the management of a hospital, constantly admitting a large number of acute cases, to be properly comprehended.

It would perhaps diminish the difficulty if all justices were allowed to act and not only a specially selected number. The new list of justices specially appointed for London for the ensuing year was not printed, or at least not circulated, till ten or twelve days after the appointment, at least one invalid order being signed in consequence. This will be referred to under Clause 35.

*Clause 11 (6).*

“An urgency order shall remain in force for seven days from its date, or if a petition for a reception order is pending, then until the petition is finally disposed of.”

In August considerable difficulty arose in getting proper justices' orders in the case of patients who had been first admitted on urgency orders.

Case of J. W. (admitted on urgency order 2/8/90).—The reception order was signed by a justice not specially appointed, and was therefore invalid. The friends could not find another justice to act, and the urgency order expired. Dr. Hyslop wrote to the Commissioners in Lunacy saying the patient was not in a physical condition for removal, and asking for advice. They replied that the patient must be at once discharged, but allowed that in the interim, before a fresh petition and two certificates could be presented, she might be admitted on a fresh urgency order and certificate.

This was done, the patient, who had cellulitis of the neck and was expected to need tracheotomy, being examined for certification in the hospital. In all, *six* certificates, two urgency and four others, were signed about this patient, and she died.

In the case of H. C. (admitted first on an urgency order 11/8/90), and S. W. (admitted first on an urgency order 15/8/90), the same difficulty arose. No specially-appointed justices could be got to look at the petition within seven days, and the Commissioners informed Dr. Hyslop (in my absence) that a petition cannot be said to be pending unless actually presented to a judicial authority. The original urgency orders, therefore, expired, and fresh ones were obtained, six certificates having been signed in each case. The Commissioners then apparently saw that to sanction a constant succession of urgency orders and certificates might defeat the object of the Act as to

the necessity for a judicial intervention in each case, and so they wrote to Dr. Hyslop:—

“Sept. 3rd, 1890.

“SIR,—

“With reference to the case of H. C. and the other recent cases of difficulty concerning which the Commissioners in Lunacy have corresponded with you, I am desired to impress upon you that their suggestions for the employment of second urgency orders were only made because of the peculiar and pressing nature of the cases. This mode of dealing with a difficulty is not one which should be allowed to become an ordinary practice. I am further to say that they consider, if this course should ever in future be necessary, that the person signing the urgency order should see the patient, and the medical certifier should examine the patient outside the walls of the institution. The patient, in fact, should be actually discharged and replaced in the care of his friends before the order and certificates are signed.

“I am, sir,

“Your obedient servant,

“CHAS. DEANS,

“For the Secretary.

“T. B. Hyslop, Esq.”

It is satisfactory to find that the Commissioners recognized that there were “peculiar and pressing” occasions, such as, for instance, the serious physical condition of the patient J. W., which justified breaking the letter of this Act; but that they should be driven by the law to say that in future, whatever be the condition of the patient, he or she must be taken out of the institution, shows the inhumanity of the Statute. That a medical man should be compelled to turn a dying person into the street because no justice of the peace or magistrate can be found to do his duty is a satire on our civilization. If there is the same absence of justices from town next summer, and there are similar cases admitted to Bethlem, it will be difficult to avoid breaking the law without doing violence to all humane feelings.

*Clause 35.—“A reception order, if the same appears to be in conformity with this Act, shall be sufficient authority,” etc.*

The Commissioners in Lunacy say that it is our business to see that all the papers on which a patient is admitted are in order and valid, and apparently the fact of a justice signing an

order which appears on the face of it to be properly signed is no protection to the medical superintendent.

The following are examples of difficulties experienced here from justices signing improperly and not in conformity with the Act. Many justices of the peace do not seem to have the inclination to examine properly the documents submitted to them or to be able to fill up a legal document with the care required in lunacy cases. The enormous amount of worry added to the relatives of insane people, and to the officers of the institution, has become almost unbearable, and one cannot see that it is ever likely to be less if the present clauses remain in force.

Case 1.—S. E. E. (admitted 19/6/90, under an urgency order).—The justice's reception order was imperfect, he having omitted the name of the signer of the second medical certificate, and it had to be sent back to him for correction.

Case 2.—A. M. H. (admitted 18/7/90).—The justice, a medical one, I regret to say, signed the order without the petition being filled in at all, and the papers had to be sent back for this addition, it being necessary for the justice to redate and initial his order; several days' delay in the admission of a maniacal case being the result.

Case 3.—H. T. T. D. (admitted 2/8/90).—The reception order was signed by a justice without the petition being filled in, and the paper had to be sent back to be corrected in the same way as in the last case.

Case 4.—J. W. (admitted 2/8/90, under an urgency order).—A justice who was not specially appointed subsequently signed, "on his own responsibility," on one medical certificate, and no petition. This case was referred to under the heading of Clause 11 (6) as having needed a second urgency certificate.

Case 5.—S. W. (admitted 15/8/90, under an urgency order).—The reception order was signed on his own responsibility by a justice not specially appointed, and was, therefore, invalid, and fresh certificates became necessary. This case was referred to under the same clause as the last one, a second urgency order and certificate having been signed.

Case 6.—F. W. (admitted 23/9/90).—The justice signed the reception order, although he had presented to him an unsigned petition, an unsigned statement, and only one medical certificate. This involved most serious delay in the admission of a maniacal case.

Case 7.—A. E. C. (admitted 22/9/90).—The justice signed the reception order, though there was no date given in the petition when the patient was last seen by the petitioner, and no address.

Case 8.—A. B. A. (admitted under an urgency order 2/7/90).—The justice signed the reception order, though the undertaking to visit the patient once in six months was not completed by the insertion of the patient's name.

Case 9.—A. W. (admitted 21/10/90).—The reception order was signed by a justice, though the petition was not filled in, and had to be sent back for correction, causing delay in the patient's admission.

Case 10.—H. W. L. was admitted first as a voluntary boarder, but becoming suddenly maniacal an urgency order and certificate were obtained on 27/9/90. The petition and two other certificates were then put in order, and the friends, after applying in vain to two London justices, went to one whose only official address for the purposes of this Act was given as being in the heart of London, but who, nevertheless, was specially appointed only for Surrey. He believed that, Bethlem Hospital being situated geographically in Surrey, he had a right to sign a reception order for a patient in Bethlem Hospital, and did so accordingly. The Commissioners in Lunacy refused to allow that the order was valid, unless he were also a justice for the County of London. On my writing to ask the justice if he had power to act for London as well as for Surrey, he said he had, and added the words "and London" to the order. The Commissioners then wrote to ask me if he were appointed for London before the date of his original signature, to which I replied that I had not been informed on this point, and I requested to know whether the Commissioners thought it a part of my duty to thus question the action of a justice. To this the reply came that it was my duty to see that the patient was admitted on a valid order. I then sent again to the justice, and asked if he had been appointed to act for London before the date of his signature, and he replied: "I have not before me the exact date of my original appointment, but I have no doubt that it was prior to the day on which I signed the enclosed order." A copy of this was sent to the Commissioners, and I said that I could not see it was part of my duty to question the justice further, and referred them to him if they wished more information. However, they wrote to ask if he were appointed for London under the Act of 1889, or that of 1890, and to settle the matter I went over myself to see the justice.



My surprise, annoyance, and, at the same time, amusement, may be imagined when I say that a little conversation revealed the fact that he had never been appointed for London at all. He said he was very sorry for his mistake, and he thought Bethlem Hospital was in Surrey. The Commissioners directed me that my only course was to discharge the patient, but as by this time a month had elapsed from the urgency order and the patient had recovered from his maniacal excitement, he was discharged "recovered." He was told that he was free from certificates, and he remained as a voluntary boarder in order to go to our Convalescent Hospital. It is hardly necessary to ask whether the work thus involved is at all necessary or desirable in the interest of the patient, and whether it is right that a medical man should be taken from his proper duties in this way.

Case 11.—R. R. (admitted under an urgency order, 23/10/90).—The patient lived in Sussex, and was maniacal. The petition had been duly presented to a justice for Sussex, who signed the reception order, but kept the petition, contrary to the wording of the second part of the clause. The patient was brought up to London on October 23rd, and being taken to Peckham House, to which institution she was destined, admission was, of course, refused, the papers not being in order. The husband signed a fresh petition, and then went to find a justice of the peace to make a fresh order. After driving about, and finding all the J.P.'s to whom he was sent were out, he came in despair to Bethlem. The patient having been travelling since 11 a.m., and it being now 6.30 p.m., it would have been a serious matter to have sent the petitioner off to another justice and then back to Peckham, as the patient was much exhausted from want of food and from struggling with excitement, so I got an urgency order signed by the husband, and had the patient examined in the cab at the gate of the Hospital by a medical man, who signed an urgency certificate. The husband was nearly out of his mind with anxiety and worry, and one cannot think otherwise than that the justice was by his action entirely responsible for the needless delay, worry, and harm to the patient.

Case 12.—H. B. L. (admitted 21/10/90), living previously at Twickenham.—The petitioner had driven about for three hours trying to find a Middlesex justice, and having at last found one, the latter refused to sign, and sent the petitioner over to a Surrey one, who signed a reception order in the fullest confidence that he was doing right. After admission it was found

that the order ought really to have been signed by a Middlesex justice, and was therefore invalid. The only thing to be done was, in accordance with the Commissioners' letter of September 3rd, previously quoted, to send the patient (a homicidal and suicidal one) out of the hospital in the care of his friends to St. Thomas's Hospital, where an urgency order and certificate were signed, and he was then re-admitted. Two more certificates and a petition were prepared and presented to a justice, whose name was in the original list of those appointed for London (the patient now being in the county of London). The justices' clerk did his best to persuade the friends that a Middlesex magistrate should sign, but I had informed them that the patient was now in a different jurisdiction, and that a London justice must act. To this they adhered, and the justice signed. It will hardly be credited that this gentleman signed, though he no longer had power to do so, his name not being in the new list for the ensuing year. This we were at the time quite unable to tell as the new list was not sent to us till twelve days after the new appointments were made, and it is abominable that this delay should have led us to give a wrong justice's name to the petitioner, and that the justice should act when no longer specially appointed. The only thing, however, to do, as soon as the second order was found to be invalid, was to go myself to another London justice, after seeing the Commissioners on the matter, and get a third order, the second group of certificates being still just within date. In all five certificates and three reception orders were signed in this case.

This dividing up of the country for the purposes of private lunacy cases into a number of little foreign states, no justice having any power to sign for a patient in any county but his own, even if he has every opportunity of investigating the case or seeing the patient, renders the working of the Act exceedingly difficult in cases such as this, and imposes very unnecessary delay and anxiety on the friends. It is worthy of note that the first mistake in this case was made by the very justice who was the proper one to make the order, and who declined to exercise his judicial functions.

Case 13.—E. H. (admitted 21/10/90).—The petitioner went by previous arrangement, so he tells me, at a definite hour (two p.m.) to a Police Court. The magistrates' clerk, however, came out and said there were thirty summonses, and he could not attend to the matter, and that there must have been a misapprehension. No certificate was given to the effect that the

matter would interfere with the ordinary work of the court, and no time was fixed for the consideration of the petition. The addresses of two J.P.'s were then given to the petitioner, but both were out. At the residence of the second one another address was given, and this third J.P. signed his name merely to the reception order, but did not fill it up. His name was not in the list specially appointed for London. The patient was then brought here with the order in this imperfect state, and of course she could not be admitted.

As she had been  $2\frac{1}{2}$  hours in a cab, and was getting exhausted and worried at the meaning of all this travelling, I had to recommend her husband to take her home again—fortunately not far off—while he went to find another justice.

In this case the patient, in addition to being insane, had chronic Bright's disease, and delay and exposure to cold were detrimental. The petitioner was also nearly driven mad.

Case 14.—F. M. W. (admitted under an urgency order, 22/10/90).—The justice merely signed the reception order without filling it up, and it had to be refused till put in order by him.

Case 15.—A. C. (admitted 5/11/90).—The justice signed, though the petition was not signed, and there was no undertaking to visit the patient. In his order he omitted the names of the medical men, and inserted that the petitioner was the wife of the patient's husband. It had all to be sent back, and the errors corrected, thus involving considerable delay in the admission of a suicidal patient. Surely such a mistake as was made in this order should not be made by a justice of the peace.

Case 16.—E. S. C. (admitted on an urgency order, 1/11/90).—The justice signed the reception order, though the petitioner had not seen the patient for three months, and it had to be sent back to be re-dated after the petitioner had been to see the patient. The justice does not appear to have examined the petition.

If medical superintendents were to make such mistakes as these with regard to the dates in forms, they would be very properly censured by the Commissioners. Who is, however, to censure the justices of the peace and see that *they* do their work properly?

Case 17.—M. E. F. (admitted 7/11/90).—The order was signed originally by a justice for Surrey. On referring to our list for the ensuing year I could not find his name, and refused to accept the forms. I afterwards heard that this estimable

justice "forgot" he was not on the list, and signed. The certificates ran out of date, and had to be re-dated. Another justice refused to sign because of the alterations, and because of the erasure of the name of the first J.P., and because the medical men were not present to swear to their signatures. Eventually a third justice was prevailed on to act, much utterly unnecessary delay being caused.

I think I have said enough to show that the Act has caused in many cases the most unjustifiable delay, that many justices of the peace seem utterly incompetent to perform the duties required of them by the Act, and that there has been a great deal of worry and annoyance in consequence.

Fortunately, however, for our own sanity, we have found a few justices who have done all they could to make the Act work smoothly for us, and without whose help we should often have been in great difficulty.

It appears to me to be advisable:—

1. That all justices should be allowed to sign in order to avoid the constant mistakes of signature by those who have no right to sign, and on account of the impossibility of finding out satisfactorily who is and who is not specially appointed.

2. That the jurisdiction of a justice for private lunacy cases should not necessarily be limited to the place "where the lunatic is" (Clause 9).

3. That in some way or other justices and magistrates should be informed clearly as to their duties and responsibilities under the Act, and be made to carry them out.

4. Provision should be made that a sufficient number of justices should be on duty during the holiday months in order to prevent the difficulties of the past summer.

5. Arrangements ought to be made by which the list of justices specially appointed should be printed and circulated within twenty-four hours of the appointment in order to prevent mistakes in the admission of patients on the orders of justices who may have "forgotten" they are no longer entitled to act. If special justices are still to act, there ought to be a recognized official register of them.

Since writing the above the following additional facts have come to light:—

1. Case of J. S., (admitted 5/9/90.)—The petition was taken to a Police Court by the patient's daughter-in-law. She was put to sit among a number of rough people and was extremely annoyed and hurt at this. She was subsequently



allowed to go into the Clerk's Office, and her papers were looked over. She was not allowed to see the magistrate, but the clerk said to her "Do you suppose we have nothing else to do but send people to lunatic asylums?" and gave her the papers back. There was no statement by the magistrate to her that the signing would interfere with the work of the court, and no date was fixed for the consideration of the petition. She speaks of the treatment she received as being "most insulting," and is prepared to swear to it if necessary. She had to go to a justice to get the order signed. Can such treatment as this be considered necessary in the interest of liberty of the subject?

2. Case of H. H. (admitted 21/11/90, on an urgency order).—The petitioner subsequently went to two justices whose addresses had been given her; both were out, but at the residence of the second one the name of another J.P. was given her, and he signed. When the order was brought his name could not be found in the list specially appointed for London, and another justice had to sign. As this was the second occasion on which this particular justice had illegally signed, the Lord Chancellor was written to on the subject.

3. Case of J. P. T. P. (admitted 26/11/90).—The date of the justice's order was Nov. 21st, the date of one of the certificates was Nov. 22; if these dates were correct the justice could not have had the two certificates before him when he signed. As the patient, however, came from Buckinghamshire it would have been impossible to send him back, and the wrong date was regarded as a clerical error which might be corrected within fourteen days, and the patient was admitted.

4. Case of K. S. F. (admitted 25/11/90).—The patient was brought on Nov. 25 with the justice's order dated Nov. 27, and admission had to be refused till it was corrected.

5. Case of G. F. W. (admitted 27/11/90).—The petitioner went to a justice, who looked at the papers, and although the case was very clearly described in the certificates, and the petitioner had someone with him to give corroborative evidence, he refused at first to sign, and said the matter ought to have been brought before the justices in the morning. He objected to sign unless the papers were all duly filled up by the clerk, and objected to the petitioner filling up the petition himself. He eventually signed the reception order in blank, though the petition was not filled in, on condition that the petitioner should go subsequently to the

office of the justices' clerk to get the particulars inserted. On going there the clerk was away, but a junior made the petitioner fill in the details in the petition, and he himself filled in the blanks in the justice's order. He then handed the papers to the petitioner, and said "Five shillings, please," which was paid.

A good deal of time was wasted in the admission of a serious case by the action, or rather inaction, of the justice. The visit to the clerk would have been totally unnecessary if the justice had taken the trouble to sign the papers properly. The only reason for it seems to have been that the petitioner might pay five shillings.

R. P. S.

## CLINICAL NOTES AND CASES.

*Stuporose Insanity Consecutive to Induced Hypnotism.* By M. J. NOLAN, L. and L.M.K.Q.C.P.I., L.R.C.S.I., M.P.C., Fellow Roy. Acad. Med., Senior Assistant Medical Superintendent Richmond (Dublin District) Asylum.

"Je n'ai jamais rien vu survenir de grave"\* wrote M. Richet to Professor Heidenhain, giving the results of the experiments he had made in hypnotism; and no doubt he was fully justified in doing so, since only one individual tested by him suffered any inconvenience, and that in a very slight and passing degree. Putting this evidence with his own observations, Heidenhain not unnaturally asserts that "there is no ground whatever for objection to hypnotic experiments,"† and again he says "it must be remembered that the necessity for precaution has not arisen as the result of unfavourable experience, but merely because it is our duty, for the sake of the person experimented on, to be over careful rather than not careful enough."‡ The case under present consideration is, however, calculated to shake our confidence in such assurances of complete immunity from danger in hypnotic experiments, especially when conducted by unskilled persons; and indicates, moreover, that Professors Richet and Heidenhain owe their happy results as much to good fortune as to the

\* "Hypnotism," Heidenhain, p. 100.

† "Hypnotism," Heidenhain, p. 101.

‡ "Hypnotism," Heidenhain, p. 102-3.

perfect freedom from risk they calculate on with so much certainty. Still further, it confirms the remarks of Binet and Féré, who say "with respect to the performance of such experiments in public, it should be condemned just as we condemn public dissections of the dead body, and vivisection in public."\* But this note of warning, though important, is perhaps the least interesting of the many considerations to which a study of this case gave rise, since it was particularly rich in the various psychological and physiological manifestations appertaining to the hypnotic and stuporose states. For this reason I desire to bring it under notice, and, owing to the kindness of my chief, Dr. Conolly Norman, who placed the man under my immediate charge for observations and treatment, I am enabled to do so. My grateful acknowledgments are also due to Surgeon-Major Martin, A.M.S., who kindly furnished me with the notes made by him on the patient's condition during his period of treatment at the Royal Infirmary, Dublin, prior to his removal to this asylum.

*Previous History.*—Patient is one of a large family, all healthy. Two of his sisters were "nervous;" no exact history of any family neuroses can be obtained. He was taken from school at an early age to help his father at the stone-cutting trade; but he grew tired, after a few years, of the monotony and fatigue this occupation involved, and consequently abandoned it to enlist. His life so far had been quiet, and his character moral and temperate; nor did it change for some time after his enlistment. Scarcely, however, had he been promoted to the rank of lance-corporal when his troubles commenced. His habits became irregular, and he found he had not even the mental capacity to properly discharge the duties of his position. This sense of unfitness daily increased with his misconduct, until at length he was reduced. He now became unhappy, led an intemperate and licentious life, indulging in excesses as far as his opportunities and means permitted. In the October of 1888, when physically unstrung by dissipation of the grossest kind, and when at the same time he was in a state of extreme nervous tension, he attended an entertainment, at which a lady undertook to perform some experiments in hypnotism. He presented himself as a subject, feeling highly excited, "his nerves all tingling." The mode of producing hypnosis was the common one of stimulating the sense of sight by causing him to gaze fixedly at a brilliant object. To this he quickly succumbed. Within a few minutes he was dead to his surroundings, and at no time afterwards had he the slightest recollection of any event that took place during his trance—as is usual in cases of profound hypnosis. Of

\* "Animal Magnetism," p. 378.

what happened immediately afterwards we have no means of learning, but he has an indistinct recollection of leaving the stage; his first conscious feeling being an intense frontal headache. This was followed by a sense of extreme languor, which increased to such a degree that he had to lie up for some days. He was all this time "confused and queer," but recovered so far as to be discharged "improved" from the hospital. Yet he did not feel well—"his head all wrong;" could not grasp orders given to him; "tried to steady himself;" heard people call him "stupid;" had a distinct vision of a woman threatening him. He now felt impelled to drink heavily, committed various breaches of discipline; was put under arrest, but his physical state being low he was sent to the infirmary on the 4th of October, when Surgeon-Major Martin notes:—

"Patient was under treatment a short time since for peculiar pains in his head, apparently of a neuralgic character. States that some time ago he was mesmerized by a woman who gave a performance in the Richmond Barracks, and that since then he has been more or less affected. He improved considerably; was discharged to duty, but shortly after going out became very peculiar in manner, refused to go on parade, absented himself from duty for three days, at the expiration of which time he was apprehended near Beggar's Bush Barracks, having wandered about in the interval, and threatened to commit suicide by drowning himself. He was consequently sent here to-day for observation for insanity.

"*Present State*.—He has a peculiar staring expression; eyebrows raised; eyelids twitching; is very restless, and when spoken to replies in a vacant and irrational manner. He does not complain of frontal pain, and his general health is good.

"Oct. 10, 1888.—Same state. Is very restless in his sleep, constantly tossing about and rambling. Says he is married to three women. Complains of being visited at night by an ugly fat old woman, who tells him to wash clothes.

"Oct. 20, 1888.—Condition unchanged. Says he would like to fight, but so far has been quiet and docile.

"Oct. 28, 1888.—Same state. Makes foolish remarks; is restless at night, talking in his sleep. His health keeps very good. Prescribed bromide of potassium.

"Dec. 6, 1888.—Mental condition unaltered. Continues to talk in a foolish way, and looks very silly. He is perfectly quiet and tractable. His habits are cleanly, and he gives no trouble to the attendants.

"Dec. 12, 1888.—No change to note in habit or demeanour.

Jan. 3, 1889.—Passed Invaliding Board, which recommends his transfer to Richmond District Asylum for further observation and treatment.

"Jan. 14, 1889.—Transferred to Richmond Asylum."

Jan. 14, 1889 (on admission to Richmond Asylum).—Stands erect



and rigid; expression vacant; eyelids drooping, and affected with intermittent blinking movements; eyeballs rolled upwards and slightly inwards; pupils widely dilated, sluggish reaction to light and accommodation. Nostrils expanded and sniffing; lips pursed and tremulous. His arms hang flaccidly, the hands, with out-stretched palms, beating the sides of the thighs with a regular rhythmical movement. He is silent, dull of comprehension, responding to questions only when interrogated on the same point repeatedly. When shaken and spoken sternly to there is a very gradual awakening to a condition akin to "expectant attention." When unnoticed there is an increase in the frequency and intensity of the automatic movements, and a relapse to the stuporose state. Memory defective; does not recollect circumstances of recent occurrence. When questioned, replies, if given at all, are monosyllabic and incoherent. The reflexes are to a slight degree exalted.

Jan. 16, 1889.—Condition noted above remains unchanged. More detailed examination reveals the presence of the condition designated by Charcot "*l'hyper-excitabilité neuro-musculaire*," well marked in the facial, less pronounced in the muscles of the limbs. Westphal's "paradoxical contraction," or, as Erlenmeyer prefers to call it, "contracted by antagonistic distention" (*i.e.*, flexion maintained by stimulation of the extensor muscles of a limb already flexed) was looked for, but could not be demonstrated, though later, when the stuporose state gave way to a hysteroid condition, it was fairly-well marked. There is a noticeable want of accord between the thoracic and abdominal respiration—the former quick and shallow; the latter slow and unusually full. There is also well-marked vaso-motor disturbance—rapid alternating flushing and paling of the face. Owing to the position of the pupil and the disturbing effect of light on the eye, the condition of the fundus oculi could not be ascertained.

Jan. 23, 1889.—Very little change has taken place in his mental state since last note. He has been very quiet, never speaking except when spoken to; and then answering very slowly "Yes," "No," or "I don't know." He eats fairly; he is reported as "restless" at night, tossing in his bed with half-closed eyes; now and again starting up in fright. Movement is slow and clumsy. When spoken to he does not seem to grasp the meaning for some time, even when the question put is in reference to his own recent actions, he repeats the latter words of the query in a dull, echo-like tone—as, for instance, "Have you combed your hair to-day?" is answered by "Combed your hair to-day." He rarely sits down, standing slapping his hands gently to and from his sides, all the while looking vacantly before him. On this date he is sent to the School Division.

Feb. 1, 1889.—Since last note he has grown gradually brighter. There is a marked decrease in the stupor during the day, with a relative increase of sleep during the night, the hypnogenic zones evidently recovering their normal balance. The movements of the

eyelids and arms have become less frequent, and more irregular and intermittent ; the pulse slower and fuller ; the pupils less dilated ; the reaction period reduced. The psychical faculties are also more acute—a false accusation excites a blush ; a word of encouragement brings a pleased expression to his face, which, when in repose, is vacuous. The tendency to neuro-muscular hyperexcitability has almost entirely disappeared, and the phenomena of antagonistic contracture can be induced, but not in a very marked degree. The normal harmony between the thoracic and abdominal respiration has been restored. He takes part in an automatic manner in the various school exercises, enforced musical drills, associated singing classes, but does not voluntarily engage in any work.

Feb. 7, 1889.—Since last date the stuporose condition has steadily cleared away. There has been a gradual lifting of the veil, and each day gave evidence that all mental operations—volitional, emotional, and intellectual—were asserting their powers over the abnormal condition that clogged the due performance of their functions. With the re-awakening has come a sense of resistance to the suspending influences ; he now seeks to throw off the dreaminess, and is gratified with the success that attends his efforts. He yawns very often, stretches his legs and arms, rubs his eyelids ; now and again gives his whole body a shake. He answers more readily. He complains that a woman comes to his bedside at night to threaten him. He has come to a knowledge of his confinement here ; has an indistinct recollection of the events immediately antecedent to his removal to the Royal Infirmary ; and is unable by any effort of his memory to fill the blank dating from the moment he was hypnotized to his committal to the military prison. He feels acutely that he is a “lunatic,” knowing that it precludes him from further service.

Feb. 17, 1889.—Depression, and hysterical and emotional manifestations, are now the prominent features of the case. He regrets deeply that his mind gave way, he weeps at the thought of the sorrow his misfortune must have caused his parents, and sobs at the reflection that he cannot join his regiment again. A general feeling of nervousness, and *globus hystericus* are complained of, as well as a want of interest in life. Yet when reminded that very recently he attempted suicide he states he has no recollection whatever of it, and that even in his present sad state he is not by any means inclined to end his troubles by that method. On the contrary, he is anxious to return home to prove himself recovered, and to start on some new path of life. He feels restless ; is unable to employ himself indoors ; is losing sleep and appetite. He is now sent from the school to the farm division.

Feb. 27, 1889.—Mental and physical improvement to note. He eats and sleeps well, has in a great measure thrown off his depression, being buoyed up by the hope of speedy discharge. There is little to indicate the prolonged stupor and subsequent depression

through which he has passed. He has touched his normal mental level, which is of a comparatively low type, with a strong neurotic colouring. He is apprehensive, when spoken to, of hearing evil news, and when one day asked as a test to submit to a hypnotic experiment, he betrayed abject terror, and begs that he should not be urged to go through such an ordeal; at the same time he confessed his inability to resist the order should it be insisted on. He adds, moreover, that even looking at a gas light now confuses him, and that he is unable to sleep with uncovered head in a room where there is one burning. There is still a very marked vaso-motor disturbance manifested by flushing, paling, copious secretion of pale urine, and facial perspiration after mental strain.

March 7, 1889.—The past week has confirmed his convalescence, and much of the nervousness has been subdued by tonic treatment. He has now come to look on his attack of stupor as a misfortune of the past, not to be thought of again. He now looks forward, and is of good cheer. The pulse is firm, skin cool, physique robust, and spirits excellent. His expression, naturally dull, is to-day bright, in anticipation of his removal this afternoon by the military authorities. He is discharged recovered, five months from the date of the onset of his attack.

*Remarks.*—The foregoing history at once eliminates any suspicion one might be inclined to entertain of malingering, so common in persons of this class. The physical manifestations were of a type too unusual to be simulated by one of such low mental calibre. Putting, therefore, that consideration aside, we find in the individual under notice the typical subject required by hypnotic experimenters for the production of the most remarkable phenomena. On the one hand the bout of excess plunged into immediately before he submitted himself to the hypnotic influence, furnished more than the degree of susceptibility which “depends on a greater or less degree of sensory irritability.”\* On the other, we have this psychical hot-bed, centred in an “active muscular individual,”† to whom Mr. Hansen gives his preference. In a word, we have a subject made, as it were, to order for the exemplification of the hypnotic phenomena. His mind all on tension with curious expectation, vibrating with a sense of conscious distinction, this individual gazed earnestly and steadily at the bright object held by the operator, seeing it as a distinct luminous point, until gradually it was lost in an ever-widening golden nebula, which shut out all else. The sensorium hyperexcited for

\* Heidenhain, p. 30.

† *Ibid.*

many days and nights preceding is lulled to rest by the withdrawal of all stimuli, save one, which demanding for its reception the residual nerve force, exercises a lethal influence on consciousness—the last spark is taken from the well-nigh exhausted battery—the last flash is followed by profound darkness. Here it is that this case becomes of peculiar interest to the alienist. Before, however, proceeding to discuss the very extraordinary phases of mental disturbance that closely followed the experiment, I desire to touch briefly on the condition of a brain so rapidly and thoroughly deprived of its highest functions, and destined before its complete restoration to its normal state to be subjected to the suggestions of disordered senses, to the atrophic influence of prolonged stupor, and the ranges of emotional outbursts.

It has long since been remarked that \* “if the supply of arterial blood be altogether withdrawn the brain ceases to act, sensibility becomes extinct, and the mental powers are no longer manifested;” and again, that when perfectly oxygenated blood is sent to the head “dark and venous, exactly as received by the lungs, but being unfit to excite or support the action of the brain, the cerebral functions become impaired, and ere long a cessation of all the functions of sense, thought, and feeling may take place.” Very recently a careful observer has pointed out that a vast number of cases of stupor are due to cerebral malnutrition, the result of organic lesion—“a steartic condition of the arterial system of the brain”†—the remainder originating in malnutrition due to functional derangement of the vascular supply. For many years Heidenhain held that the allied condition of hypnosis might be explained by the theory of cerebral anæmia, but has now discarded it for the hypothesis of “inhibition of the ganglion cells of the cerebral cortex.”‡ Now in the case under notice there is a rare combination of psychical disturbances—lethargic, stuporose, and explosive—consequently for an explanation of such opposite conditions we must seek a complex cause; “anæmia” on the one hand, and “ganglionic inhibition” on the other, fail to satisfy us, nor does the union of the two solve the difficulty. Where then are we to turn for

\* Combe, “On Mental Derangement,” edited by Sir Arthur Mitchell, K.C.B., p. 46.

† “A Study of Stupor,” Dr. Whitwell, “Journ. Ment. Sci.,” Oct., 1889.

‡ “Animal Magnetism,” Heidenhain, p. 46.



help? Might I presume to venture on an opinion I would suggest that a chain of effects is worked out somewhat after this fashion:—

(a.) *Primary* impaired nutrition of the nerve cells composing the ganglionic centres, increasing their irritability and susceptibility to inhibition, such malnutrition being the result of excesses (alcohol and sexual), whereby there has been an undue strain on the nervous system.

(b.) *Psychical* phenomena — (Lethargy-stupor-delusions; Hallucinations; Suicidal impulse; Emotional and Hysteroid outbursts)—started by stimulation of the optic nerve.

(c.) *Vaso-motor* disturbances due to the deranged functional activity of the nerve centres, affecting and maintaining the various abnormal psychical phenomena.

In support of this view it may be remarked that (as is well known) the results of excesses in the first instance are manifested through the nervous system long before any coarse physiological change has taken place in the organ which has been ill-treated. Here the overstrain lowered the inherent vitality of the nerve-centres, and rendered them more than usually susceptible to inhibition. Let us see how the hypnotic strain is borne. The optic nerve being stimulated, “the luminous vibrations directly transformed into nervous vibrations by the peculiar action of the retina, are all at first concentrated in the grey centres in the optic thalamus, and radiated thence chiefly into the antero-lateral regions of the cerebral cortex.”\* Now, bearing in mind that the cerebrum itself has a very marked influence over the vaso-motor centre, as is evidenced by the phenomena of blushing,† it may be assumed that the “nervous vibrations” having found their way into the cortical substance at length reach the chief vaso-motor centre. This *complex-composite* centre is situated in close proximity to, and intimately connected with many other important centres in the locality, the result being that their functions are thrown out of gear in consequence of their diminished blood supply—stimulation of the vaso-motor centres causing contraction of the cerebral vessels. Thus we have the centres not alone affected in their nutrition in *quality*, but also in *quantity*, at a time, too, when they have to bear up against the exhaustion consequent to the induction of hypnosis. Deprived of their intrinsic support, and overcome by external influences, the cerebral functions are at first

\* “The Brain and its Functions,” Luys, p. 261.

† Landois and Stirling’s “Physiology,” p. 677.

rendered dormant. With improved nutrition a struggle for reinstatement is entered on, but the subjugation of the will has been so complete that the period of stupefaction is prolonged unduly, until at length, after violent emotional oscillations, the equilibrium is once again restored. Having thus ventured to form some idea of the psychical changes and their *modus operandi*, it will be interesting to note some of the more uncommon characters of the case.

(1.) *The undue length of the period of stupefaction during which volition and consciousness were partially dormant, and the patient was altogether irresponsible for his actions.*—Maudsley has pointed out that in a *minor* degree all hypnotic states are followed by mental enfeeblement, and says in this connection, “after coming out of this trance a little time must elapse before the will resumes its power; for a while he remains unduly susceptible to the suggestions of others, and too easily influenced by commands.”\* Here, however, the suppression of the will was so absolute, and exercised such an undue effect, that it re-established itself with difficulty, for a time imperfectly, and as far as observation went, permanently weakened. Under certain circumstances the subject could at this earlier period be so manipulated that as a passive agent he would perpetrate crime and outrage. It is needless to dwell on the medico-legal importance of this fact; and Krafft-Ebing has very recently shown that the danger is none the less when the ideas are auto-suggestive, or post-hypnotic, than when suggested by a third person. This condition in the patient lasted nearly four months.

(2.) *The uncommon character of the Hallucination.*—Associated with the usual visionary disturbances of an ill-defined and intermittent kind, was the constantly-recurring image of a threatening old hag—a picture so vivid that it inspired terror long after its unreal nature was fully understood. The persistence of the hallucination intensified at every repetition is very striking, and may possibly have originated in the distorted visual image of some movement of the lady operator at the moment he was emerging from the profound hypnotic trance. It is to be remarked that the hallucination recurred at periods when the patient was between waking and sleeping, and that it persisted long after the delusion associated with it had passed away. In this latter respect it differed from Hack Tuke’s experience of like conditions, for he states that “this cerebral impression may persist for

\* “Pathology of Mind,” p. 60.

some time, but it is gradually effaced. It disappears with the delusion with which it was associated.”\* In few recorded cases has the hallucination taken so complete and distinct a nature. Stirling and Landois † are of opinion that “hallucinations occur only in some individuals, when they awaken from the deep sleep (usually consisting of sparks of fire and odours) being very strong and well pronounced,” but here we have one of a more distinct and distressing type. No “sparks of fire or odours” were complained of, but “flashes of light and floating, dark objects” caused some distress at the earlier part of the disorder. The old hag’s features were described as “cruel and awful,” her clothes as “bright and white,” her features as “threatening.” She always seemed first to rush at him and then come to a standstill a little distance from him. In connection with this hallucination it is also interesting to note the various mental conditions which influenced it. At first we have a delusion which creates a belief in the material existence of the imaginary assailant. Then we have (during the period of the re-establishment of the higher psychical functions) terror still inspired by what has been recognized as a delusion and despised as such. A feeling of fear and helplessness springing from what is known and felt at the same moment to be the production of a morbid mental state (a state which Pierre Janet terms “*misère psychique*”) is a condition which beautifully illustrates a mental state in which “the compact consciousness of the supreme centres has been broken up, a disordinate tendency fostered, and the disassociated centres are prone to continue their abnormal and independent action.”‡ This state, the same observer asserts, frequently follows too oft-repeated hypnotic experiments in the same individual, and he concludes by saying “and assuredly that way madness lies.”§ Tuke coincides with this opinion, differing from Charcot, who, he says, repels the notion that persons suffer any inconvenience in consequence of hypnotism. Still less does he admit its effects are dangerous. It may be that the higher sensory organizations of our Gallic neighbours are more easily restored to their equilibrium owing to their inherent versatility than those of the stolid Briton, but certain it is that very varied experiences have been gained on different sides of the Channel.

\* “Sleep-walking and Hypnotism,” p. 89.

† “Physiology,” p. 686.

‡ Maudsley, “Pathology of Mind,” p. 61.

§ “Sleep-walking and Hypnotism,” p. 119.

(3). *The Suicidal Impulse*.—We have noted that the condition of the patient was to a certain extent dangerous to others; we have now to consider the suicidal impulse which might have proved fatal to himself. At a time when active mental depression had ceased, and volition was practically dormant, he is found to make a determined and apparently deliberate effort to cut short his life. Self-destruction springs up when self-preservation is sleeping, and external influences alone avert a catastrophe of a fatal character. Since at no time prior to the hypnotic trance did mental depression give rise to any such idea, its occurrence immediately afterwards may be considered an outburst of melancholic despair, availing itself of the lethargy of all counteracting influences, and which would have never reached so grave a climax had not the normal functions of the brain been partially suspended. Not even in the dark days of despondency which overshadowed him when emerging from his stupor, and during which all the fruits of his misfortune dawned upon him, did he for one instant contemplate such a loop-hole from his troubles. When informed of his attempt at self-destruction he was horrified to think of its possible results, and could scarcely believe that he was at any time so deranged. For an explanation of this phase in his history, I am inclined to think that during the period of stupefaction there was superimposed a transient acute depression of a nature described by Bevan Lewis. "Occasionally," he says, "*as the outcome of alcoholic intemperance we meet with a form of melancholic hypochondriasis which once recognized will not be readily overlooked, associated with extreme mental enfeeblement of will, and desperate impulsive conduct as its miserable accompaniment. Such cases are highly neurotic by heritage.*"\* The italics are mine, to indicate that the patient had in a very pronounced degree the conditions requisite for the production of this mental state. It is of course possible that this impulse might have been the result of suggestion, but there is no evidence that such was the case.

(4.) *Sleeplessness* was in this, as it is in so many other cases of mental disorder, the *bête noire* of the physicians. With its amelioration a gradual return to the normal condition was noted, consequently it was evident that a complete regulation of the hypogenic zones was the best means to recovery. Every effort was therefore made to convert the light hypnotic

\* "Mental Diseases," p. 147.



state into one of deep natural sleep; various drugs were tried with varying results, the best effect being obtained from sulphonal. This drug (the action of which was very thoroughly investigated by my chief, Dr. Conolly Norman, to whose favourable reports on it its present extended use in this country is mainly due) was given for one prolonged period in thirty-grain doses at supper, and at no time did it produce disagreeable symptoms. Its use was interrupted now and again, with the result that sleep became disturbed, appetite fell off; and there was an increased disquietude during the stage of depression. I have little doubt that it very materially affected the favourable result in this case.

It may, perhaps, be considered that too much has been said on this isolated case, but the writer's desire is very great that a mental condition so complex may be discussed by competent judges. Hypnotism is fast taking its place as a science, and anything touching it should be carefully considered, and though asylum physicians may not hope for very much from it as a therapeutic measure, it cannot fail to be of the highest interest to them as psychologists. Dr. Moll,\* of Berlin, says "it is a mine for psychological investigation," and confidently expresses the hope "that the study of it will help to clear up the hitherto dim field of mental life, and will help to free us from the mountain of superstition instead of increasing it." He is supported in this view by Krafft-Ebing, Max Dessoir, and Beaunis, the latter being of opinion that "hypnotism is to psychologists what vivisection is to physiologists."

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*A Case of Homicidal and Suicidal Insanity.*† By FRANK ASHBY ELKINS, M.B., C.M., M.P.C., Assistant Physician, Royal Edinburgh Asylum; late Assistant Medical Officer, Greenock Parochial Asylum and Poorhouse.

William W., aged 33, a married man, who had lately been employed as a hall-porter, having made a homicidal attack upon a citizen of Edinburgh, was, by a warrant of the Sheriff, admitted from the Calton Jail to the Royal Edinburgh Asylum, on April 26th, 1890.

*Disposition.*—He was sensitive, cheerful, very excitable, rather proud, and sometimes quarrelsome.

*Habits.*—Although alcoholic, he had led a fairly steady and industrious life until two years ago.

\* "Hypnotism," Albert Moll, p. 333.

† Reprinted, with some alterations and additions, from the "Edinburgh Medical Journal" for September, 1890.

*Previous Attacks.*—These had been four, and all of them had occurred since November, 1888. He had been treated at Londonderry, Perth, Greenock, and Edinburgh Asylums, having been discharged “recovered” from each asylum, after an average residence of three months’ duration.

*Hereditary History.*—A great aunt was insane, a brother was alcoholic and died of kidney disease, and a sister died of phthisis.

*History.*—He was the youngest child of his parents. As far as can be ascertained, his childhood and youth appear to have been normal. When a lad he had two severe falls from scaffolding, and in one of them he injured his back, and is said to have been unconscious for a few minutes. In 1874 he came to Edinburgh, and was employed as porter and “boots” in various hotels. For the long period of eight years (1880 to 1888) he was hall-porter at the Liberal Club in Edinburgh, a position of some trust, and requiring a good deal of intelligence. The manager of this club says that he did his work well, but that he was very excitable and inclined to quarrel and fight when off duty, especially after taking a little drink, which “went to his head” and made him quite unreasonable and unmanageable. The members of the club speak highly of him, as having been obliging, attentive, and of agreeable manners, and he was very popular among his own acquaintances.

In 1885 W. consulted Dr. John Playfair for “fainting fits,” one of which seized him in the doctor’s consulting room. Dr. Playfair knew W. well, and has some indistinct recollection of his becoming faint in the consulting room, but thinks he must have regarded the faint as a slight temporary heart weakness and nothing more.

During the general election of 1886 it was part of W.’s duty to receive and post up a great many telegrams, and taking the keenest interest in politics, he became greatly excited, and behaved “crazy like.” He was at last dismissed for drunkenness, but on account of his long service he was taken back at reduced wages. However, a short time after he left the club of his own accord, and was then idle and drunken for several months, until at last, deciding to try his fortunes in the New World, he left Glasgow by the s.s. “Ethiopia” on the 8th November, 1888. Before leaving Glasgow he had a drinking bout with some old friends, and during his first night on board he was sleepless and suspicious of his companions. He was afraid they wished to torture and otherwise maltreat him. Labouring under these delusions, next morning, when off the coast of Ireland, he deliberately attempted suicide by throwing himself overboard. By a splendid act of heroism, Dr. D. Scott Moncrieff, a passenger on board, jumped over the side of the vessel and kept him afloat until both were rescued. W. was then taken to Londonderry Prison, and ultimately to the asylum. Dr. Hetherington has kindly supplied me with notes as to W.’s condition at that time. He was depressed, strongly suicidal, rather excited and restless, and fancied that he

heard his wife's voice ; but his memory was good, his speech was quite coherent, and he could answer questions. He had a furred tongue, his heart's action was very quick, and the patellar reflexes were exaggerated. He was discharged quite well on 27th December, 1888. W. himself says :—" Whilst I was at Londonderry Asylum I thought I was being drugged, and I believed I was being watched by Orangemen,"—the latter delusion, taking into account that he was a fervid Liberal, that he was in a disordered mental state, and that he had been landed unexpectedly on the north coast of Ireland, was certainly not very extraordinary. Leaving Londonderry, he went to live with his wife in Perthshire, and for a time did not drink at all, but nevertheless suffered from "queer thoughts." One day he came into Edinburgh, took a good deal of drink, and returning to Perthshire, attempted to cut his throat. At that time he imagined that his wife was urging him to cut their child's throat ; and he became so greatly afraid he might commit an act of violence upon it that he was most anxious to be sent to an asylum. He was then, in consequence, admitted to Perth Asylum. From the notes of the case, placed at my service by Dr. Campbell's kindness, it appears that W. was then depressed, had hallucinations of sight and hearing, and delusions of electrical agencies ; he confessed to past suicidal impulses, and showed partial forgetfulness of the more marked maniacal outbursts. Dr. Campbell, from his observation of the case, gathered the suspicion that while under the influence of drink he had epileptiform seizures. Otherwise he appeared an ordinary *Mania a Potu* case. After being in Perth Asylum for two months he was dismissed well, but soon became ill again, entertaining suspicions of his wife without cause, and particularly imagining that she never told him the truth. In consequence of these symptoms he was sent to stay with his brother in the Forfarshire hills, and was there employed in felling trees. He did not drink whilst there, but presently getting depressed and unsettled, he left and became for a short time hall-porter at a hotel in Inverness. The manager says he was quiet and unassuming, but rather absent-minded. One morning W. asked the manager if he might leave, as he was insane. He said he felt depressed, and as if he were being hunted down. Getting work next at St. Rollox Station, Glasgow, he attempted suicide by placing his head upon the rails before an approaching engine, but was rescued by his fellow-workmen, and taken to Greenock Asylum. By Dr. Wallace's kind permission, I am able to say that W. was then depressed, strongly suicidal, and had delusions that people were following him, and that everything was against him. Dr. Wallace writes :—" Though unquestionably suicidal when brought to Smithston, it is remarkable that when affected with strangulated hernia, for which I had to operate on him, he showed the greatest eagerness to get well, and as a surgical patient I could not have had a better." Leaving Greenock Asylum after four months' treatment, he went to

Glasgow, and again falling a prey to drink, and having once more attempted suicide by throwing himself in front of a heavy van, he was admitted, four days after leaving Greenock, to the Royal Edinburgh Asylum. At the time of admission he was depressed, suicidal, and with delusions that people were following him, and that he was going to be killed. He also stated that just before making the suicidal attempt he had a "fainting fit" similar to those for which he consulted Dr. Playfair four years ago. His left forearm and hand were much bruised in his attempt to commit suicide. A few days after admission he volunteered the statement that his muscles were urging him to do things that he knew were wrong. He made steady progress towards recovery, his delusions left him, and only for a day occasionally would he show any lowness of spirits. Ultimately, after all signs of depression were gone, and as he was cheerful and working well, he was dismissed. He had been in the asylum three months; he had been kept in a much longer time than would have been the case but for his history; his wife was urgent for his dismissal, and he himself thought it "very hard lines" to be kept in so long. Seven days after, he was re-admitted, having, in the interval, made the homicidal attack. His wife, who fetched him from the asylum, noticed that he was strange in manner immediately after leaving. He was absent-minded, and did not seem to notice her speaking to him. After a walk together, she was obliged to return to her work, and left him with sufficient money for immediate use. This money has been accounted for, and was not spent in drink. That night he went to the theatre, but says he did not enjoy himself, as he had the old suicidal longings, and the old idea of being hunted. At the lodging-house where he stayed, he was very uncommunicative, and the following day he appears to have done little else but walk about in an aimless manner. He met his wife, who noticed he was worse and more depressed. He told her to go away and leave him to his fate, and when she left him he said, "This is the last time you will see me." Being conscious of his state, and wishing to be re-admitted, he came twice on the next day to the asylum gate, and asked to see Dr. Clouston, who was unfortunately out. Meeting Mr. N., whom he knew and whom he afterwards assaulted, W. conceived the idea of killing him, and bought an ordinary clasp pocket-knife for the purpose. He had absolutely no ill-will towards Mr. N.—indeed, ten years previously Mr. N. had been instrumental to some extent in getting W. his post in the Liberal Club. He walked about all that night and all the next day with the homicidal feeling uppermost in his mind, and quite supplanting his suicidal desires. There is little doubt that W. dogged Mr. N.'s steps, until, at about midday, finding him alone and in Lover's Loan, a sequestered narrow lane in the city, he rushed upon him from behind, threw him over, and stabbed him twice.

W.'s account is:—"I had queer thoughts; I thought everything



was coming to an end ; I felt I could not leave the city, and dogs kept me from getting work. When I looked towards Mr. N. and determined to kill him, I felt happier and more satisfied, and as if I were doing right ; the rain seemed to stop, and the sun got brighter ; but when I turned away, and was frightened to do the act, the sky seemed to darken and it rained."

During the attack W. never spoke a word, he appeared very confused, and had a determined, fixed, fierce look. After he had inflicted the injuries and had been disarmed, he sauntered quietly away without giving any explanation of his conduct. When arrested he was just going to the infirmary to have his hand dressed, as it had received some slight cuts in the struggle, owing to the clasp knife closing upon him. To the police he gave a wrong name and was very reticent, but when taxed with the assault he admitted it. In the evening he told a detective that "Jesus Christ made him do it," and "when the electricity which comes in at my toes and runs up my body gets to my head, then I do these things."

*State on Admission.*—He was depressed and nervous, and laboured under the delusions that dogs kept him from leaving the city, that he was being hunted down for crime, that electric shocks were going through his body, and that some evil-disposed persons had marked him (showing some slight marks upon his skin). He was coherent in his speech, his memory was good, and he could answer questions. He was quite conscious of his insanity, and deplored his suicidal and homicidal tendencies. In appearance he was a well-developed, muscular man, with a fine open countenance, which the accompanying portrait, admirably sketched by Mr. Williamson from a photograph, will show. He had a left internal squint, the eyes were placed rather near to each other, and as the outer orbital angles were directed a little upwards, he had a slightly Japanese expression. The eyebrows were continuous in the middle line, and the beard was very sparse and patchy. All the tendon reflexes were exaggerated, and he complained of numb and "electric" sensations. There were two scars upon the head, one upon the chin, and another over the seat of the strangulated hernia. The bodily health and condition appeared to be excellent.

Tried for the offence before the Sheriff, W. was sent to the Lunatic Department of Perth Prison during Her Majesty's pleasure.

*Causation.*—His hereditary predisposition, his previous mental illnesses, his former alcoholic habits, and the falls in his youth, all may have tended to produce the attack : but there is also the question as to whether he is an epileptic. The history of "fainting fits," the distinct "electric" *aura* which preceded the homicidal attack, together with Dr. Campbell's suspicions as to his having had epileptiform seizures, all point in the direction of epilepsy. No doubt the alcoholic habits had much to do with the production of the first three attacks, but the last was certainly not so induced, and was probably the result of being sent away from the controlling influence of



TO ILLUSTRATE DR ELKINS' CASE.



asylum life, when he had no home to go to, and no work to occupy his mind. To him the asylum was indeed a refuge, and he was fully conscious of its steadying effect upon him, as is abundantly proved by his two separate attempts to gain readmittance when labouring under the recurrence of morbid feelings, and by his frequent observation, during his last attack, that he felt "safe" in the asylum.

*Notes on the Case.*—This is the case of a once respectable man who, owing to his mental disease, has now become a criminal lunatic; but it is impossible to regard him as, in any proper sense, an ordinary criminal. Yet one is disposed to ask whether there be not much in common between the case of this man and those cases which are constantly brought under notice in the pages of the daily press, as for example where a parent, after a drinking bout, suddenly murders his or her children and then attempts or commits suicide. In W.'s case, as we have seen, the mental storm soon spent itself, so soon indeed that, after being in the asylum but for a short time, it would have been extremely difficult for a medical man to have certified that he was insane, except for the light thrown on the case by the man's previous history and by his own acknowledged feeling, that when he at any time took a little drink he habitually lost all self-control.

Dr. Clouston, in his book on "Mental Diseases," writes:—"Homicidal impulse is often spoken of by lawyers, publicists, and ignorant persons, as if it were a thing that did not really exist, but had been set up by the doctors to enable real criminals to escape justice." No better example than this case could be brought forward in proof of the real entity of the homicidal impulse.

One of the latest published books dealing with insanity from its legal aspects,\* says:—"The criminal premeditates his plan and of necessity selects his victim. The impulse has no premeditation, and has not of necessity a selection." Yet W. selected his victim, bought a knife, chose a quiet place for the assault, and gave a wrong name when arrested.

Such an attempt upon life is of course naturally so alarming, and so calculated to excite the keenest interest in the public mind, that it was to be expected extreme views on the subject would find expression in the press. One daily paper,† after asking how it was W. came to be at large, goes on to say that the fact of his having attempted suicide so

\* "Williams' "Unsoundness of Mind," 1890, p. 211.

† "Scottish Leader," June 7th, 1890.



frequently surely rendered him a case for detention. It is almost unnecessary to say that asylum officials have no right to keep a sane man in detention because of his having an attack of insanity consequent on a drinking bout, even if during the course of it he had attempted suicide. That a person is liable to become insane is no argument for continuous detention in an asylum. It would be interesting to know for how long the writer of the article here referred to would, under the above circumstances, take away the liberty of the subject. According to statistics taken in Morning-side Asylum,\* four-fifths of all cases of melancholia have the suicidal impulse, and thirty-nine per cent. have actually attempted suicide, many of the latter more than once, so that, if all these people are to be detained after recovery, the size, or the number of our asylums, must be vastly increased.

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*Glasgow Royal Infirmary : Case of Acute Dementia. Treatment by heat and cold to head, electricity, general massage, etc. : Recovery.* By ALEX. ROBERTSON, M.D.

Dr. Robertson stated that the patient had been admitted under his care on the 10th of January last, when she had been ill for about seven weeks. She was a girl of 24 years of age, and her occupation was a linen-dresser. There was no known cause, and her family history was good, except that her father had been subject to some sort of "fits." She had become gradually weaker, both in body and mind. At first there had been hallucinations both of sight and hearing, and she had complained of headache; but it appeared that these had passed away or been superseded by the advancing stupor. Menstruation had been quite regular, but on the last occasion her mental state had been worse while it continued. When admitted she had a vacant expression of countenance and seemed unable to understand any remark, however simple. She was of filthy habits and required to be fed by the nurse. She was quite passive in every respect. There was marked emaciation; the heart's action was very weak, the pulse was very feeble, and there was coldness and blueness of the extremities. The tongue was coated and brown, the lips were blackish, and there were sordes about them and the teeth. The bowels were constipated, but had been acted on by medicine before admission.

The treatment, in the first instance, was chiefly directed to stimulation and support of the general system. Fluid food and brandy were administered at short intervals night and day. Care was taken to keep the bowels free, both by stimulating enemata and laxatives by

\* Clouston's "Mental Diseases," p. 117.

the mouth. She improved a little under this treatment, but this improvement was so slight that the propriety of sending her to a lunatic asylum was carefully considered about three weeks after admission. However, it was determined, first, to try the effect of direct stimulating applications to the brain. So, on 1st February, heat was ordered to be applied to the patient's head by the cap for an hour daily at  $110^{\circ}$  and occasionally  $115^{\circ}$  Fahr. The application was continued for about a fortnight, and then the temperature of the water was gradually reduced during the second half of the hour, till only ice-water was circulated for the last twenty minutes. On the 20th February there was distinct improvement; she took her food herself, and showed a little more mental activity in other respects. From an early stage of the treatment friction to the surface was employed, but now systematic massage, for three-quarters of an hour morning and evening, was commenced, the heat and cold to the head being discontinued. After three weeks of the treatment by massage she had further improved in every way, but even then she had not become quite cleanly in her habits. At this time she gave slow, but correct answers to two or three simple questions—such as telling her name and residence. The massage was now stopped, and the continuous current to the head was begun and continued during the next month, till 21st April. The strength of the current was about four milliamperes generally, but only two for the first two days. The positive pole was applied to the lower part of the spine, and the negative was slowly moved over the head. In about a fortnight she had become perfectly correct in her habits and was talking intelligently, as well as assisting in the waid work. Her mind, however, seemed a little slow, though this appearance might be due to her natural diffidence. She had gained 2st. 4lbs. in weight on the 14th May, the date of her dismissal from the infirmary. She was again seen at a demonstration of diseases of the nervous system in a post-graduate course, at the end of September, and was then in excellent health, both of body and mind.

In reviewing the case, Dr. Robertson said that there was no distinct improvement under general stimulation of the system, and that this did not clearly begin till after the local applications to the head. The case, he remarked, corresponded, so far as treatment and its results were concerned, with one of catalepsy he had submitted to a former meeting of the Association. Heat and cold, followed by electricity, had been used in the treatment.

Dr. Robertson also mentioned that he was at present treating a case of resistive melancholia of about three years' standing, and apparently confirmed, with heat and cold to the head. There was distinct improvement since the treat-

ment was begun about three weeks since. The temperature of the warm water circulated was 120° Fahr. The hair had not been removed from the head of this patient, as had been done in the other case.

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*Case of Sexual Perversion.* By Dr. URQUHART, Murray Asylum, Perth.

I present notes on a case of sexual perversion with some diffidence in entering on particulars which are specially disgusting. It is one of a class which has been described at great length in a special treatise by Krafft-Ebing, and which is of interest from a medico-legal point of view.

The common sot destroys his mental functions by his inveterate habit, which might well have been kept in check at the beginning of his vicious career, and similarly, no doubt, the person about to be described could have kept in a decent course of life but for the domination of his vice daily reiterated and flourishing apace by reason of his congenital and accidental defects and injuries.

The young man (No. 666) referred to had a bad heredity. His father was dissipated, and, in consequence, died young. His mother acquired venereal disease from his father while pregnant with him. The only sister was most immoral, but the only brother remains respectable.

In boyhood the patient fell over a staircase and injured his skull. He was picked up unconscious and bleeding at the ears. Since that time his mother noticed a change in his conduct. At school he was a confirmed masturbator, and he early showed a preference for the society of male children, to the disgust of his brother. He had an easy occupation in London, which caused him to be out a great deal in the open air.

Some years ago he began indecent habits towards boys, but denies sodomy. He latterly felt that no boy was safe in his company, and the "fearful joy" of his indecency became overmastering. He consulted a doctor for sexual weakness, and got tonics which increased his misery. His feelings towards women were perverted, and attempts at sexual connection were fruitless. Improper advances made by a woman filled him with disgust. His misery was increased when he heard that the police were making inquiries about him, and he eventually obtained poison to kill himself. In despair he went to a London physician and told him part of his story. The immediate result was his admission to Murray's Asylum as a voluntary patient.

He was then found to be in a fairly good physical condition; small, but comparatively well-developed; height, 5ft. 6in.; weight, 9st. 7lb.; age 26; complexion sallow, with a smooth, soft skin; beard moderate; expression anxious and effeminate. The cardiac sounds were somewhat enfeebled, and the left optic disc slightly congested. His manner was nauseous and unmanly. He said that he felt better since arrival, because he had someone to lean on; that he had decided not to destroy the temple of God by committing suicide, and so on. His life was detailed at great length and with disgusting fidelity. In a few days a detective arrived from London, and removed him to stand his trial for indecent practices.

After removal to London his solicitor asked me for a report on the case, with the view of doing the best for his client. Now, on reference to Krafft-Ebing's monograph, it is laid down as fundamental that in such cases of sexual perversion the normal feelings are either abrogated or minimized. In this case he was decided in his abhorrence of women, and thus presented this leading feature in the thesis of the Austrian author.

But if we consider the case from the point of view of the offender, who is to undergo punishment for his misdeeds, we find that the plea of insanity would in effect carry a more serious retribution than the ordinary award of the law. Broadmoor for at least five years is certainly less endurable than the maximum of two years' hard labour.

The legal mind, therefore, advised the plea of "guilty" with extenuating circumstances. These circumstances have been detailed already—the hereditary influence, the injured skull, and so on. On the one side my report was urged on the Judge as a document worthy of consideration; on the other side the Crown prosecutor contented himself with asking if I could certify and detain the patient as being "insane." Of course, a reply in the affirmative in the strictly legal sense was out of the question, and the most that could be urged by the patient's counsel was a remark on the difference between the legal and the medical view of insanity. The Judge thereupon asked, "But what is to be done with him? If he is discharged from this court and cannot be detained as a lunatic he will be here again shortly with another filthy experience."

So the rough and ready "justice" of the law courts awarded this man a year's imprisonment with hard labour.

If we accept Benedikt's idea of "proved dangerousness," and retain such a case in custody while his habit is likely to continue dangerous to society, there will be much work for architects and doctors and their subordinates. The ratepayer



would groan under the burden of many corrective establishments. But, on the other hand, it can hardly be maintained that penal servitude for a year is the best course of treatment for a man of depraved and weakly constitution, who has acquired habits of evil tendency which will, under the present circumstances, gather strength and ultimately destroy him.

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*On Certain Defects of Articulation in Children, with Cases Illustrating the Results of Education on the Oral System.\**  
By W. B. HADDEN, M.D.Lond., F.R.C.P., Assistant Physician to St. Thomas's Hospital and to the Hospital for Sick Children.

CASE I.—The patient was a boy, aged eleven, who came under my care in August, 1889. His father died in Colney Hatch Asylum ten years previously, but the form of insanity was doubtful. The mother was alive and healthy. There was only one other child, a girl, aged fifteen; she was healthy, intelligent, articulated perfectly, and was right-handed.

As a baby, the patient was healthy, and was not backward in teething or in walking. He had had no illnesses, except measles and whooping cough, which occurred when he was between two and three years old. The mother noticed that the child was left-handed when he was about four years of age. He did not speak at all until he was between three and four years old, when he began to make sounds. Up to that age he seemed to have had no words at all, expressing his wants by nodding or shaking the head or by pointing. It was stated that at the age of six he said a few words, such as "mauma" and "no"; but it was his habit to be silent up to two years ago, when he began to talk in the manner to be described. No defect of articulation was present in any relatives or in any person with whom he was in contact. On August 20th he was admitted into St. Thomas's Hospital. He was a bright, healthy boy, somewhat under-sized, but free from organic disease. He was noticed to have frequent grimaces and sniffings, chiefly when excited or watched, but there were no movements of any other part of the body. The head was well formed; and the palate was slightly arched, but otherwise the fauces were natural, and the tongue could be moved freely. He was left-handed for all purposes, although he could use his right hand as well, or nearly as well, as his left.

\* I have to express my great indebtedness to Miss Masson (the ward sister at St. Thomas's Hospital) for the greater part of the notes of the first two cases. I have also to state that this lady superintended the instruction given to the patients, and that the result achieved was largely due to her unremitting attention and to her thorough appreciation of the nature of these cases.

His speech was quite unintelligible to every one except his sister, who professed to understand it. She certainly could make out what he meant, but I am not clear if she understood the details of his speech. He could not pronounce his own name properly, and even the simplest words, such as "cat," could not be rendered so as to be recognized by others. When he talked or read it was evident that he was dividing off into syllables, although the sounds were unintelligible gibberish. He only stammered in saying the word *dedorch*, his rendering of *w* (see alphabet). He usually pronounced the elementary sounds and the letters of the alphabet in the same manner when tested on different occasions. Sometimes, however, there were slight variations both in saying them and in repeating the Lord's Prayer. This was his alphabet on admission :—

A	B	C	D	E	F	G	H	I	J	K	L	M	N
ah	be	ve	te	ee	fish	te	vatch	ah	dah	vah	ve	ve	ve
O	P	Q	R	S	T	U	W	X	Y	Z			
vah	pe	ve	ah	fish	te	ve	dedorch	fitch	vah	ve			

The following was his Lord's Prayer :—

THE LORD'S PRAYER.

Vī Vēē Bēē.

Our Father which art in heaven,

Ā Fāhēē vitch vē ē vēē

Hallowed be Thy name

Ā-ānā bē vā nā

Thy kingdom come,

Vā vē-ī vā

Thy will be done in earth as it is in heaven.

Vā vē bī dā ē vēē vās īt īs ē vēē

Give us this day our daily bread,

Bē ūs īsh dā ā dā bēē

And forgive us our trespasses

Vā fāwvēē ūs vā tēsvāvēē

As we forgive them that trespass against us ;

Vāsh vē ē vē vā tīsh ā vā vā

And lead us not into temptation,

Vā nēā nā īt īt tā sā

But deliver us from evil,

Būt dē vā ūs vā ēē vē

For Thine is the kingdom,

Fāw vā īs ī vēē

The power and the glory,

Ā pā vā vēē

For ever and ever. Amen.

Fāw vē vēē. Amee.

On analysing the various elementary sounds it was found that he was able to produce the following :—

$\bar{a}$  (as in ah),  $\bar{e}$  and  $\bar{e}$  (as in bet, be),  $\bar{i}$  (as in fish), *aw* (as in fawvee in the Lord's Prayer),  $\bar{u}$  (as in ush), and the diphthong *ea* (as in near). He could not pronounce *o* short or *o* long, *oo*, the *u* (as in fur), and the diphthongs *ae*, *ie*, *ew*. He was unable to produce the consonants *j*, *k*, *l*, *r*, *w*, *y*, *z*. He could pronounce *b*, *d*, *f*, *m*, *n*, *p*, *s*, *t*, *sh*, *ch*, and *ch* (as in the Scotch loch). These latter, however, although existing in his code, were not always produced.

On referring to the alphabet it will be seen, for example, that he made the sound of *d* in *dedorch* (his rendering of *w*), and yet he called *d* *te*. Again, in the Lord's Prayer, he gave the sound of *n* and *m* in *a-ana* and *amee*, and yet the *m* and *n* of his alphabet are both *ve*.

He could write with both the right and the left hand; with the latter he readily produced "mirror writing," as well as writing of the ordinary hand, but he could not read mirror writing.

When asked to copy or write at dictation short and simple sentences he would transcribe the first two or three words correctly, and then he would seem puzzled, the remaining words being represented either by unmeaning up and down strokes or by combinations of letters like *ve*, *va*, etc., which recalled his spoken language. He soon became hopelessly confused and unable to proceed. He could not understand his own language when I spoke it (taking, for instance, a sentence out of his Lord's Prayer), nor could he make out the meaning of words or sentences written according to his pronunciation. When reading aloud, the words, like his spontaneous utterances, were unintelligible; but it was clear that he was dividing roughly into syllables, and from questioning there was no doubt that he understood the meaning of both printed and written characters.

He remained in the large ward for about seven weeks, and soon learned some of the elementary sounds. He was taught first to pronounce the vowel sounds: *o* by copying the lips, *a* by combining the sounds  $\bar{a}$ -ee, *i* by combining  $\bar{a}$ -ee, *u* by combining ee-o.

The method adopted was really identical with that used for teaching deaf-mutes to speak. He was made to watch and then imitate the action of the lips, tongue, or teeth required for the production of the various elementary sounds; but it was often necessary actually to adjust the parts by the fingers or by forceps. After a time he succeeded in saying most of the alphabet straight through. He did not learn to roll the *r* or to say the soft *z* sound; *l* was apt to be *n*, though he could say it in one or two conjunctions; *s* was generally *sh*; *th* was produced readily.

He had great difficulty in joining consonants and vowels to make even such simple words as "boy, or "cat." At the end of seven weeks he could produce separately all the elementary sounds, except *z* and *r*, and the vowel sounds in *bird* and *pearl*, but the vowel sounds in *hat*, *pear*, and *fair* were still doubtful. He could say with tolerable correctness a few simple words and phrases, such as "cat," "dog," "sister," "good-morning," "I have done it," "my rabbit is nice." His

Lord's Prayer was somewhat changed, and it was noticed that he seemed to try to rectify his mistakes. Although he had made distinct progress during the seven weeks he was under instruction, and could produce with an effort nearly all the sounds necessary for articulate language, his spontaneous utterances were but little altered. It was impossible to prevent him talking his gibberish to the patients, so at last the conclusion was inevitable that permanent amelioration would probably not be attained unless he was completely isolated. Accordingly on October 12th he was placed in a small ward, and put in charge of a special nurse, who proved herself particularly well adapted for the work. The sister of the ward (Miss Masson) succeeded in making him not only contented, but happy. He was supplied with a rabbit and a kitten for his amusement, and had his regular exercise and games out of doors. He was allowed to look at pictures, but reading to himself and conversation in his own language were forbidden. His friends agreed not to see him without special permission being granted, and the boy himself cheerfully fell in with our proposal. I think a feeling of *amour propre* on his part lent zest to his efforts, as he was anxious when he left the hospital to show off before some boys, who laughed at him and called him "fish" (see his alphabet). During the two months he was in a separate ward he had regular lessons in reading, in spelling aloud, and in writing at dictation. He was gradually taught to join syllables so as to form words, and then to combine words into sentences. He was made to speak very slowly, as any attempt at haste resulted in a relapse to his faulty pronunciation. In his endeavours to be correct, his speech acquired a slow, *staccato* character, and the words were mouthed, so that at the end of two months, when he returned to the large ward, those patients who did not know his history thought he was a foreigner, but they could understand him readily.

When he left the hospital on January 15th, 1890, he talked quite well enough to be intelligible, and fairly quickly. He could read such easy literature as the first primer; but he was still faulty in reading longer words, and was apt to be slovenly in ending them, saying, for instance, "I have been wead," meaning, "I have been reading." The following was his Lord's Prayer:—

Auë Fathë, wheech art in hevven,  
Hallo-ed be Thy name,  
Thy kingdom come,  
Thy will be done in earth as it is in hevven.  
Geeve us this day auë da-aly bed,  
And forgive us auë tespases  
As we forgive them that tesmus against us,  
And lead us not into temptation,  
But deliver us from evil,  
For Thine is the kingdom,  
The power and the gloly,  
Faw evë and evë. Amen.



After he left the hospital special attention was given to him for a time by the teacher at the Board School. Between January and the present month (November) I have seen him several times. He has not relapsed, nor has he improved to any marked degree, except that he speaks more naturally and the articulation has lost the scanning character which it previously had.

CASE II.—John S., aged seven, came under my care in January, 1890. The parents were not related. There were seven children in the family. There was no history of insanity, stammering, or defect of speech in the parents or children. The second child (a girl aged 17) was said to have six toes on the left foot, and the fifth child (a girl aged nine) was left-handed. The father had a brother who did not speak until he was seven years old, and a daughter of a brother of the mother was said to stammer slightly.

The patient was a healthy, well-nourished, intelligent boy. The mouth, tongue, and teeth were quite normal. His articulation was very defective, though not to such an extreme degree as in the other boy. The impairment of speech was noticed when he began to talk, and the mother told me that the defect was more marked as he became older, and that he showed no signs of "growing out of it," as she expected.

He could pronounce all the vowel sounds. Of the consonants, *c* was miscalled *e*; *h*, *a*; *j*, *a*; *q*, *oo*; *r*, *aa*; *s*, *etch*; *x*, *hef*; *z*, *a*. The other letters were produced correctly in the alphabet, but when he tried to combine sounds into words other defects became apparent. *D* was rendered *t* (as *tie* for *die*), the initial *g* was omitted (as *ive* and *o* for *give* and *go*), *l* was usually and *m* sometimes miscalled *n*, the initial *r* was always *w* (as *wide* for *ride*), *s* was omitted when the initial letter (as *o* for *so* and *ee* for *see*), and the *z* sound in *zee* was also left out. Like the other boy, he was slovenly in the endings of words, *choose* being *choo*, and *child* *chil*. Rarely he transposed: letter, *kite* being *ike*.

The following was his rendering of the Lord's Prayer, very slight variations being noticed on different occasions:—

Anë Favë, which art in en-en,  
 Annow be ma name,  
 Noy in-dom um,  
 Vy will be done in ear va it e in ennung.  
 E uh vith day a dai-y be,  
 A fogee uh for cheh-ee-ay  
 A we foh-eev vem vat cheh-futh a ain uh,  
 And ee uh not va tentay-ung,  
 Buh denee uh fon evil,  
 Foh ine in e ingdom,  
 E power an i o-wy,  
 Foh ee an ee. Amen.

It is interesting to note some of the defects as seen in his Lord's Prayer.

The *th* sound was usually omitted, as *ine* and *e* for *thine* and *the*, but three times the sound of *v* was substituted (e.g., *vy* for *thy*), and *m* and *n* were substituted each once. Yet he produced *th* in with his pronunciation of *this*. Again, *n* was used for *v* (*ennen*—*heaven*), or the *v* was omitted, as in *fogee* (*forgive*) and *ee* (*ever*), but pronounced correctly in *foheev* and *vem*. Similar inconsistencies in his rendering of various sounds will be seen on analyzing the Lord's Prayer. The tendency to mispronounce or leave out the terminal sound of a word is obvious in several instances. I determined to pursue the same plan with this boy as in the other case, but my anticipations were by no means sanguine. He was four years younger than the other, and partly, no doubt, on this account, and partly because of his natural disposition, which was stolid and indifferent, the outlook was not very hopeful. The result, however, was more favourable than I expected. At the end of three months, during about a month of which time he was isolated, he had made considerable improvement, and his articulation became quite intelligible.

Relatively he made less progress than the other boy, although the number of elementary sounds which he was capable of producing with an effort was greater. When first seen he could pronounce many sounds quite well when he set himself deliberately to the task, but when he tried to combine these sounds so as to form words and sentences, he frequently failed. This difficulty, although obvious enough in Charles M., was comparatively greater in John S., and was overcome less readily. I see the boy from time to time; he makes slow but distinct improvement, although he now receives no special guidance beyond what he may get at home and at school.

About the time when John S. first came under my notice, another boy, aged four, was brought to me with defect of articulation. It was probable that two of the father's brothers had died insane. Neither the patient nor any of the family were left-handed or the subjects of malformation.

All the children were said to be backward in talking, though not backward in other respects. There was no history of stammering or other defect of articulation in any of his relations, near or distant. The patient began to speak at the age of two, but it was not until fifteen months later that he tried to put words together. He was an intelligent boy in every way. His hearing was not affected. The palate and mouth generally were well formed. He did not stammer. I could produce all the vowel sounds, and could repeat correctly the alphabet, except the letters *c*, *d*, *g*, *j*, *k*, *l*, *q*, *t* and *w*. His power, however, to combine the elementary sounds in ordinary articulate language was very defective, and his speech accordingly was practically unintelligible. I gave the mother instructions for teaching him by the oral system, and also sent her to St. Thomas's Hospital to watch the method adopted with John S. I did not anticipate an encouraging result from isolation in so young a boy, and I therefore determined, at any rate for the present, not to resort to this measure.

At the present time, nine months after I first saw him, he has acquired more elementary sounds, and his speech, though still very imperfect, is more intelligible.

In order to appreciate thoroughly the nature of the defect in these boys, it is essential to recall the acquirement of speech in the infant. Speech is looked upon almost as an instinctive act. Nevertheless all, or nearly all, infants receive some education in the mechanism of speech. The mother or nurse, sitting facing the child, and repeating, or rather mouthing, such simple words as "baby" or "ta-ta," is familiar to everybody. At first the infant, by watching the lip movements of the mother or nurse, succeeds in reproducing the sounds by sheer mimicry, though it is not until still later that it utters them spontaneously. The earliest acquired sounds are those of the labials *b*, *p*, and *m* (e.g., *baby*, *papa*, *mama*), and the linguals *d* and *t* (as in *dada*, *ta-ta*). It is very probable that these sounds are acquired with comparative facility, because the mechanism on which they depend is simple and visible. The mechanism for the production of the consonantal sounds, *g*, *h*, *j*, *q*, and *w*, is more complicated and less manifest, and hence they are often mispronounced by young children. Again *s* is often mis-called *sh* or *th*, or when the initial letter is omitted altogether, and the sound *r*, at the commencement of a word, very frequently represented by *w* (wun for *run*). This latter defect indeed not uncommonly persists through life, and may occur in several members of the same family, possibly from imitation, or it may be from some inherent defect. All our efforts to teach these boys to roll the *r* were quite ineffectual, and at the present time they substitute for the initial *r* the sound of *w*. It may be taken that, at any rate at first, the young child requires some education in acquiring certain elementary sounds, but later on the more complicated sounds are reproduced, as it were, automatically, and require no special education. It would appear that when the co-ordinating centre, which presides over the mechanism of the elementary sounds concerned in speech, has received a start, its further development proceeds without special guidance, and that its evolution depends on the integrity of the auditory perceptive centres. That variations occur in the rate and degree of development of this centre is clear from the differences which are found in the facility of acquirement of speech, and also from the fact that in some instances the blundering efforts of the child sometimes

persist to a period when all elementary sounds are normally acquired. It may be, as pointed out just now, that certain defects are never remedied. There is no doubt that minor degrees of defective speech in children, not due to local conditions in the mouth, commonly disappear without special treatment. The acquirement of speech, like the acquirement of walking, is of slow growth, and in both the special muscular co-ordination is liable to variations in its rate of progress, and in its permanent fixation. It is well, perhaps, that I should emphasize the fact that the cases to which I call attention are characterized by extreme defects of articulation in children of good mental capacity, which are associated neither with mechanical conditions in the mouth nor with disease of the auditory apparatus, but are almost certainly dependent on some fault in the central nervous system.

That there is a special centre regulating the combined movements necessary for the production of speech cannot be doubted. On this point some pertinent remarks of Dr. Bristowe (*"Theory and Practice of Medicine,"* 7th ed., pp. 991-992), are worth quoting: "Looking to the extreme complexity of these movements, it seems certain that that part of the brain in which words are transformed into ideas, and are revived in thought, acts, in the process of transforming them again into articulate speech, upon the centres of origin of the various nerves of speech through the intermediate agency of a special co-ordinating centre. . . . Words are practically innumerable. The elementary sounds, however, which by their combinations produce articulate language, are probably less than fifty in number, and this comparatively small number therefore also represents all the groups of simultaneous combined movements which the tongue and lips can be called upon to execute. It seems probable—partly on these grounds, partly from the consideration that language (apart from the mere mechanism by which it is uttered) is a mental function, and partly from the consideration that the function of a co-ordinating motorcentre is to regulate or combine groups of movements—that the duty of the assumed co-ordinating centre of speech must simply be to preside over that essential, but comparatively subordinate department of speech which consists in the production of the elementary articulate sounds."

Dr. Bristowe alludes to the possibility of a lesion affecting



this centre resulting in dumbness, and he remarks that a patient, by copying the mechanical arrangements of speech, might be taught to speak like deaf-mutes are taught. Such a case, indeed, has been published by Dr. Bristowe (*"Transactions of the Clinical Society,"* Vol. iii., reproduced in his *"Clinical Lectures and Essays on Diseases of the Nervous System,"* p. 93). I may briefly state about this patient that in addition to paralysis, which at the onset was rather widespread, there was inability to utter a single articulate sound, although for all other forms of voluntary movements the tongue, lips and cheeks were unaffected. The man was quite intelligent, understood everything that was said to him, could comprehend all that he read, and could maintain a conversation in writing, his interlocutor speaking. Dr. Bristowe's view was "that his inability to speak was most probably due to his having forgotten how to combine automatically the movements of these organs so as to obtain from them the elementary sounds which, in combination, constitute articulate speech. . . ." The man was made to copy the mechanical arrangements of the parts concerned in the production of articulate sounds, the principle, indeed, used in the instruction of deaf-mutes, and at the end of two weeks his speech was entirely restored.

This case, which comes under the class named "aphemia" by Dr. Bastian, has some affinity with the condition which is illustrated by my patients.

In the latter it would appear that there was a faulty development of that part of the brain which in Dr. Bristowe's case was profoundly paralysed. Thus may be explained the clinical differences between the two conditions—defective speech in the one, dumbness in the other.

There are a few points which are significant, and may possibly throw light on these cases, to which I will make brief allusion.

In the case of Charles M., I was originally inclined to attach some value as a means of explanation to the fact that he was left-handed. The use of the right hand in the great majority of persons is, in all probability, due to a higher development of the left hemisphere, which, "like an elder brother, takes and keeps the lead through life." Putting aside cases of mechanical interference with the right hand—such cases, for instance, as paralysis occurring in early

life—left-handedness is no mere accident, but probably dependent on what might be called “transposition of the hemispheres.” The occurrence of aphasia with left hemiplegia in left-handed people points to this. In the boy Charles M., who was left-handed, I was inclined to the belief that the speech centre, being presumably in the right hemisphere, had not only been transposed, but had been arrested in its development. John S., however, was not left-handed, although he has a sister who is so. In the third case which I mentioned there is no left-handedness either in the patient or in any member of the family. The conclusion is inevitable that there is no necessary association between these speech defects and the use of the left hand. The facts within my own knowledge warrant no decided inference; but I believe investigation in this direction may prove of value.

The history of insanity in the family in two of my cases may be of some import. I merely call attention to the fact. It is well to note the slight stammering observed in the first case, and also the fact that a cousin in the second case stammered. In the third patient there was no history of such defect.

Dr. Harrington Sainsbury\* has described a case which agrees in essential points with those given in this paper. In his patient the right little toe was double, and on this point I gather that he inclined to lay some stress as indicating a tendency to malformation. This deformity was not present in my cases, but a sister of John S. was said to have six toes on the left foot.

In dealing with these cases of extreme defects of articulation, I am inclined to consider isolation a very important element. I am sure that the results of education were far more speedy, more effective, and more permanent than they would have been had the patients not been isolated.

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\* Case of Difficulty of Speech, “The Journal of Mental Science,” January, 1889.

## OCCASIONAL NOTES OF THE QUARTER.

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### *Lunacy Act, 1890.*

We draw the special attention of our readers to the paper by Dr. Percy Smith, read at the November Meeting of the Association, on the defective working in practice of the Lunacy Act, 1890. It will be found among the "Original Articles," and the discussion upon it in "Notes and News." The article is at once so forcible from its array of indisputable facts, and so temperate in tone, that it can hardly fail to convince those who introduced and sanctioned this legislation that the result has, in some respects at least, proved cumbrous, mischievously complex, and unworkable, except at the expense of endless worry, waste of time, and wearisomeness of the flesh to the friends of patients, and injurious to the best interests of the latter, in consequence of the delay, alarm, and in some instances dangerous exposure to the weather while being carried hither and thither, from pillar to post, in order to discover a qualified justice, and, if qualified, willing and able to sign the reception order. It is not necessary, however, to discuss the Act in this place; it must suffice to refer the readers of the Journal to the above-mentioned articles and discussion.

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### *The Value of the Evidence of the Insane.*

A case which has recently been tried before the Recorder of Dublin and a jury forms a subject for the serious consideration, not only of the members of the Medico-Psychological Association, but of all those who are associated with the care and control of the insane. Hitherto we have always considered that if the medical superintendent of an asylum was satisfied by the evidence of patients upon whose word he knew he could rely, that an attendant had been guilty of undue harshness or cruelty towards a patient, he would be perfectly justified in suspending that attendant and bringing the matter under the notice of his committee, who would either make the attendant's discharge absolute, or reinstate him if upon investigation the circumstances of the case were found to warrant it.

The case, however, to which we wish to draw especial attention at once and in no uncertain fashion, at any rate as far as

Ireland is concerned, upsets any such reasonable proposition as this, and it is because we consider the matter of the utmost importance in its bearing upon the management of asylums and similar institutions that we feel it our duty to give full publicity to it.

Briefly, the facts as reported in the "Freeman's Journal" for October 8th, 1890, are as follows:—A man named Hayes was an attendant in the Richmond Asylum, Dublin, under the medical superintendence of Dr. Conolly Norman. A patient who had been under Hayes' care died, and at the post-mortem examination it was found that six of his ribs were broken, four on one side and two on the other. An inquest was held and the medical witnesses stated that these injuries could not very well have been caused by the patient falling out of bed, and must have required considerable violence to inflict them. The immediate cause of death was stated to be an abscess of the lung resulting from the broken ribs. The inquest was held on July 4th, and the jury returned a verdict that the patient's death was due to violence, but they were unable to say how the violence had been received. Dr. Conolly Norman was examined at the inquest, and no charge was then made against any attendant. On the 20th of July, however, three inmates of the asylum made a statement to Dr. Conolly Norman, in consequence of which he suspended Hayes. On July 22nd the Board of Governors held an inquiry, at which the patients were examined, and the result was that Hayes was informed immediately after the inquiry that he was dismissed. Hayes now brought an action against the Board of Governors for wrongful dismissal. He claimed £45 damages and obtained a verdict.

It would appear from the statement of his counsel that the patient O'Connor, whose death was the cause of Hayes' dismissal, was removed from the Dundrum Criminal Lunatic Asylum, where he was a warder, to the Richmond Asylum as a patient. He was very violent, and had to be manacled by the attendants while he was being removed. He was admitted into the Richmond Asylum on June 3rd. On June 15th he was removed to the hospital to which Hayes had not access, and on July 1st (that is sixteen days after) he died. Counsel therefore contended that from June 15th to July 1st Hayes had nothing whatsoever to do with O'Connor, and whatever injuries he received he must have received in the hospital.

Hayes was called, and in his evidence he stated that from June 3rd to June 14th O'Connor was very refractory and



violent, that he had charge of him from time to time, and that necessary force had to be used towards him to keep him quiet, but he used no violence whatever towards him.

We do not gather from the newspaper report that any other evidence was called on Hayes' side.

The case for the Board of Governors was stated by counsel to be that O'Connor met his death by violence, and he would prove what happened on June 12th by producing the unfortunate men who were present. In fact, the three lunatics were in the precincts of the court, ready to be called if necessary, and it was eventually decided to call them.

Bryan Manning was the first witness. He stated that on the 12th June he was in the corridor near the day-room when he saw O'Connor knocked down and kicked in a brutal manner by Hayes, and he said also that the reason he did not give evidence at the inquest, and did not report the matter earlier, was because he did not want to make it bad for himself.

John Boyle, the next witness, said he saw O'Connor and Hayes wrangling, and he saw Hayes strike O'Connor three or four times. He gave a somewhat similar reason as the last witness for not mentioning the matter earlier.

The calling of the third lunatic led to a painful scene, he became greatly excited, and had to be taken out of court.

We have thought it right to give the above facts of the case so as to put the point we desire to emphasize as clearly as possible before our readers. We have here two patients produced by the medical superintendent of an asylum as reliable witnesses, and we take it, if he had not been certain that their evidence was reliable, he would not have brought them forward, and they were called and permitted to give evidence on oath. The third patient, as was explained by the medical superintendent, had had a relapse since the inquiry by the Board of Governors, and, as we have seen, he could not be sworn.

The Recorder, in summing up, commented upon the evidence of the lunatics, and put it thus to the jury (we are here dealing purely with the evidence of the patients): "He did not see why Hayes was to be ruined for life on the evidence of three lunatics unless they were coerced to believe them, and he held that they could not be coerced to believe them under all the circumstances;" and he added, "there was no evidence whatever to show that Hayes had been guilty of violence, nor any evidence to show that the injuries to O'Connor were caused on the 12th of June."

Now, the only conclusion we can arrive at after such a dictum as this is, that the Recorder permitted the evidence of the two patients to be given upon oath in open court, and after having done so he told the jury the law held their evidence to be valueless. We submit that such a state of the law as laid down by the learned Recorder is intolerable and contrary to English precedent. We have it on the word of a reliable witness of the proceedings that the Recorder said the patients had given their evidence in an admirable manner, and that he had never heard better witnesses, but they were insane!

It would appear, therefore, according to this ruling, that the evidence of a lunatic, however truthful, straightforward, unshaken by cross-examination, and however perfect a statement of facts it might be, simply and solely because the witness is insane, it cannot be accepted in an Irish court of law, and, this being the law, the Governors or Committees of Management of Asylums cannot interfere to protect their poor patients from the violence of brutal attendants if the only evidence against them is that of eye-witnesses who are themselves insane. We submit that although a witness may be insane he may be labouring under a form of insanity which will not invalidate his evidence if it is outside the range of any delusions he may have. In a paper upon "Complaints by Insane Patients,"\* Dr. J. A. Campbell called attention to a case where an attendant was fined in a Scotch Sheriff's Court for assaulting a patient on the sole evidence of the patient, who was stated to be labouring under delusions. The medical evidence was "that though the patient was the subject of delusions, they had no reference to the injuries he had sustained, and that his statement as to how he had come by his fractured rib could be implicitly relied on."

If the law of Ireland as laid down by the learned Recorder were allowed to stand, it would mean that the evidence of all persons who are insane (be their insanity ever so slight), and consequently the bulk of the inmates of institutions for the treatment of mental diseases, would be inadmissible in a court of justice, and as Lord Shaftesbury said in his evidence before the Select Committee in 1859, "those persons would be left to the mercy of their attendants, against whom an act of violence or crime could with the utmost difficulty be established, and the penalties imposed by the Legislature upon such acts would be useless."

\* "Journal of Mental Science," Oct., 1881.

In dealing with the evidence of insane persons, there are two points which must be primarily considered. First, is the patient in such a condition mentally as to know that he ought to speak the truth to the best of his ability? and, secondly, is he able to report the facts? In Pope's "Law of Lunacy" it is stated that "the English law, refusing in this particular to be bound by the specific limitations of the civil law, makes the capacity to understand the sanctity of an oath, the test that the witness knows he ought to speak the truth to the best of his ability. This is the part of the judge to ascertain; if he is satisfied that the witness understands the nature and obligation of an oath the witness may be examined. It is for the jury to determine what value is to be assigned to his testimony, and in order to diminish the assignable value of that testimony, evidence as to the insanity of the witness may be adduced by the other side."

That this is the English law of the subject, we have the most important case of "*Regina v. Hill*" as proof. It was the case of a pauper lunatic in an asylum, who, in consequence of the violence of his attendant (a man named Hill), had his arm and four ribs broken, and he died from the injuries he had received. The attendant was prosecuted, and found guilty of manslaughter, mainly upon the evidence of one lunatic, named Donelly, and judgment was postponed in order that the opinion of the judges might be taken as to the admissibility of his evidence. The case was argued at great length as a Crown case reserved before five judges, namely: Lord Chief Justice Campbell, Baron Alderson, Baron Platt, Mr. Justice Coleridge, and Mr Justice Talfourd, who held *unanimously* that Donelly's evidence was properly admitted. It appeared in the course of the trial that Donelly laboured under a delusion that he had spirits in his head, but that he was quite capable of giving a rational account of any transaction that passed before his eyes, and that except as respected his delusion he was always rational. Lord Campbell said the proper test must always be, does the lunatic understand what he is saying, and does he understand the obligation of an oath? The lunatic may be examined himself, that his state of mind may be discovered, and witnesses may be adduced to show in what state of sanity or insanity he actually is. Still, if he can stand the test proposed, the jury must determine all the rest. In a lunatic asylum the patients are often the only witnesses to outrages upon themselves and others, and there would be impunity for offences committed in such places if the only

persons who could give information were not to be heard. Mr. Baron Alderson, in concurring, said: I quite agree that it is for the judge to say whether the person called as a witness understands the sanctity of an oath, and for the jury to say whether they believe his evidence. Here the account of the lunatic himself, and the evidence of the medical witnesses show that he was properly received as a witness. In citing authorities having reference to the point in argument, an unreported case (*"Rex v. Morley"*) was quoted, in which Mr. Baron Parke admitted a witness proved to be, to a certain extent, insane, and also another in which Mr. Baron Hullock admitted as a witness a surgeon who had been acquitted of a crime on the ground of insanity and was then in confinement.

The prosecution in this case of *"Regina v. Hill"* was undertaken at the instigation of the English Commissioners in Lunacy, and the account we have given of it is taken from their sixth annual report, published in 1851. Ever since that time it has been a rule for our guidance as to the admissibility of lunatics as witnesses in a court of law, and as the Commissioners said at the time, "The point may now be considered as finally settled."

We should like to know what the Irish Inspectors of Lunatics have to say upon the subject. We are given to understand they "have the power to hold sworn investigations at asylums on any subject connected with discipline and management," and we cannot understand why such a case as that of O'Connor's death should have been allowed by them to pass over without thoroughly investigating it.

Again, have they not the same power to investigate cases of assault upon insane patients by attendants in asylums under their jurisdiction as the English Commissioners have? Under the Lunacy Act, 1890, proceedings may be taken against any person for offences under this Act by the Secretary of the Commissioners upon their order, and by section 322 illtreatment of a patient is an offence punishable by fine or imprisonment, or both.

If the Irish Commissioners are not empowered by legal enactment to investigate such cases, the sooner the law is amended to give them the power, not only to investigate them, but also to bring about the punishment of the offenders, the better for the poor lunatics over whose welfare they are appointed to watch, and the better also for the proper administration of the institutions in which they are detained, whilst with regard to the law of Ireland,



which counts as valueless the evidence of a witness because he is insane, it is to be hoped immediate steps will be taken to amend it upon the lines of the English law which we have referred to in our *résumé* of the subject.

Since writing the above, the Governors of the Richmond Asylum have appealed against the judgment of the Recorder's Court. The appeal was heard on November 18, before Mr. Justice Holmes in the Queen's Bench Division of the High Court of Justice, and resulted in the judgment of the Recorder's Court being quashed. On the proposal of the appellant's counsel to call one of the inmates of the asylum as a witness, Mr. Justice Holmes said—

"This raises two important points in respect to the evidence of a person of unsound mind—first, I must be satisfied that the person understands the nature of an oath, and next that he understands and appreciates the evidence he is giving. But," said his Lordship, "if I were counsel in the case, I don't think I would call the witness. I don't see any necessity for it."

Counsel then submitted that the Board of Governors were perfectly within their right in dispensing with the services of Hayes as they did.

When the case was before the Recorder, it was conducted in the most extraordinary way by his Worship. Why, the Recorder absolutely required the Governors to satisfy a jury that Hayes was guilty of manslaughter, and he left a question on the point to the jury when there was really no question in the case for a jury at all! In giving judgment his Lordship concurred in the view that the question in the case was outside the province of a jury to decide.

"We all know," said his Lordship, "that in these lunatic asylums, which are such very useful institutions, there is a resident medical superintendent, and there are officers and servants. Well, there are statutes under which these institutions are governed, and there are rules made under these statutes regulating the tenure under which the various officers and servants hold their positions. . . . As far as regards the servants they may be removed at the absolute will and discretion of the Governors, without the approbation of any person being required. It would be absolutely impossible to conduct a lunatic asylum if the Board of Governors did not possess this power of dismissal without cause being shown, or if some other person or persons did not possess that power. The servants and officers of a lunatic asylum have immense power over persons who are unable, not merely to defend themselves, but who cannot give an account of the

transactions afterwards. Therefore if a dismissal could not take place without good cause being shown by the tribunal that had the power of dismissal, it would be almost impossible that good cause could be shown at all. The reason of that is obvious. The person who may have been illtreated by the officer or servant of a lunatic asylum may be a lunatic, who could give no proper account of the transaction at all, and the lunatic may be a witness of such a transaction, and yet may not be able to give a proper account of it. . . . What, under these circumstances, was the Board of Governors to do? The Board is bound to inquire into the matter as well as it possibly can; and not merely is the Board justified in inquiring from the various officers, but they were bound also to inquire from the various lunatics, and if they did not do so they would be guilty of the greatest dereliction of duty. Well, the result of the inquiry was that the Governors determined, in the exercise of their discretion, to dispense with the services of this particular servant—Hayes; and what I am deciding here is that they were justified in doing so, and discharging him without giving any reason of any kind."

It will be seen from the dictum of Mr. Justice Holmes (which is widely different from that of the learned Recorder of Dublin), that the charge of assaulting the patient was not the question to be tried, although the Recorder seemed to lay particular stress upon that point. The case really hinged upon a question of law as to the right of the Board to dismiss their servants without giving any cause for so doing, and Mr. Justice Holmes's clear exposition of the law upon this point will prove a great boon to the Irish asylum authorities in future. Upon the other part of the question, which relates to the admissibility of the evidence of lunatics, Mr. Justice Holmes' ruling will be found to follow the lines laid down by the case of "*Regina v. Hill*," to which we have referred.

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### *Suicide in St. Paul's Cathedral.*

The Service of Reconciliation in St. Paul's Cathedral on October 13th, 1890, is so remarkable an event in psychological and ecclesiastical history that it ought not to pass unrecorded in this Journal. During the previous month, Edward Easton attended the Sunday service, committed suicide by shooting himself, and died in the consecrated edifice. At the inquest the jury found a verdict of suicide "*whilst temporarily insane*," which to the illegal and uncanonical mind would seem to divest the circumstances of

the taint of crime as much as if the man had broken a blood vessel. It cannot be the blood in itself that renders consecration, or rather reconciliation necessary; it must be the supposition that there had been some infraction of the moral law. However, after the careful consideration of precedents, the Dean and Chapter presented a petition, in which it is stated that they had been advised that the cathedral had been, "by such act of self-murder, and by the blood-shedding consequent thereupon, polluted and defiled." To this petition the Bishop of London replied, and by virtue of his episcopal authority declared "the said Cathedral Church to be exempt and reconciled from all canonical impediment, and from every profanation contracted and incurred by, or through, the aforesaid acts of suicide and blood-letting for ever." In this quaint phraseology it is curious to note the event is recognized as involving two acts. The Bishop acted under the advice of the Chancellor, Dr. Tristram. In justification of his advice he makes a very singular observation: "The evidence at the inquest established a case of partial insanity or suicidal mania; there was none to show that he was otherwise of unsound mind." It is to be regretted that the Chancellor should express an opinion on a subject he knows nothing about. As well might a physician pronounce an opinion upon an obscure point of law. But this is the way with the lawyers. They are as much at home in the philosophy of the human mind and its pathology as if they had studied medical psychology for a lifetime. The service consisted of an anthem, a short address from the Bishop, followed by his direction to the Registrar to read the petition of the Dean and Chapter. Then the Litany and 51st Psalm were next read, and the latter portion of the Communion Service was read. When the prayers were concluded the Registrar read out the Sentence of Reconciliation. While it is admitted that in the Canon Law of both the Eastern and Latin Churches an obligation to pursue this course existed, and was therefore in force up to the time of the Reformation, it would seem that it was not imperative upon the Bishop to act as he did. Since the Reformation there is no mention of a single instance of the performance of this remarkable service. Dr. Tristram believed that the public desired to have the ceremony performed. *The Times* was of opinion that there was no general wish for such a service. On the contrary, their correspondence supported the belief that the Bishop, Dean, and Chapter would have

exhibited more prudence if they had ignored the suicide and allowed the services to go on in the usual way.

*The Times* makes the following very sensible remarks on the whole case:—"Whatever view may be taken of the necessity or otherwise of a Reconciliation Service and an episcopal sentence under the circumstances, it remains clear that the action of the Cathedral Authorities is logically indefensible. The church either was, or was not, technically 'polluted' the moment Easton killed himself within its walls. The cause of the pollution is not for the moment important. It may be in the eye of the Canon Law the physical act of bloodshed, as suggested by our correspondent 'E. A. A.' It may be the sin, *coram Deo*, of self-murder—a thesis, by the way, which Dr. Tristram seems disposed to adopt in the face of the verdict at the inquest that Easton committed suicide when of unsound mind. If the cathedral was not polluted and profaned, why trouble the church with a contentious service and ceremony at all? If it was polluted and profaned, why continue to use it for Divine worship and for the celebration of the eucharist for nearly a month in its unreconciled condition? As 'A Country Rector' pointed out in a letter we published shortly after the ceremony, the clergy in the cathedral when the suicide was committed were bound, on the pollution theory, to stop the unfinished service, strip the altar, and close the church until the reconciliation was effected. Immediate action of the kind is implied in the whole theory of the Eastern 'Opening,' and the Latin 'Reconciliation,' of a desecrated edifice. They did none of these things. They waited to be advised, and meanwhile they carried on the daily services of the cathedral as if nothing had occurred. Then, when the general feeling of horror and perturbation caused by the unhappy man's death had nearly subsided, they again fixed public attention on his terrible end by springing a novel rite upon their congregation, under circumstances which go far to make it wholly unmeaning. The compromise is not a happy one. The old function had its significance, but we are by no means assured that English Churchmen are in these days prepared to accept the doctrines it would seem to import. In default of clear legal obligation, which apparently did not in the present case exist, it seems of doubtful expediency to celebrate a ceremony practically obsolete, impregnated with pre-Reformation principles, and which has in all likelihood been suffered to survive only



because it was unknown. But, in any event, it was absurd to thrust it prominently before the public after first pursuing a line of conduct which manifestly deprived the rite of the only meaning and justification it could ever have possessed."

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## PART II.—REVIEWS.

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*Thirty-second Annual Report of the General Board of Commissioners in Lunacy for Scotland.* Edinburgh, 1890.

The total number of lunatics under the official cognizance of the Commissioners in Scotland on 1st January, 1890, was 12,302. This is an increase during the year 1889 of 348, an increase which has taken place entirely among pauper patients, private patients having diminished by two. The increase of *registered* lunatics (*i.e.*, not including inmates of training schools or the lunatic department of the General Prison at Perth) is 334. In Royal and District Asylums there is an increase of three private and 172 pauper patients; in Private Asylums a decrease of two private patients; in Parochial Asylums an increase of 18, and in the lunatic wards of poorhouses a decrease of two pauper patients; in the Perth Prison an increase of one; in imbecile training schools an increase of 11 private and two pauper patients; and in private dwellings a decrease of three private and an increase of 148 pauper patients.

As regards Establishments, the number of private patients admitted during the year, excluding transfers, was 479, or 40 less than during the preceding year; and the number of pauper admissions was 2,161, 60 more than during 1889. The number of voluntary patients admitted was 76, 21 more than the average for the decennium 1880-89, and the number resident on 1st January was 55.

Two hundred and one private patients were discharged *recovered*, being 18 more than during the year 1889, and 17 above the average for the quinquennium 1880-84; and the recoveries among pauper patients amounted to 944, the same as last year. The proportion of recoveries to

admissions, excluding transfers, is shown in the following table:—

CLASSES OF ESTABLISHMENTS.	Recoveries per cent. of Admissions.					
	1880 to 1884.	1885.	1886.	1887.	1888.	1889.
In Royal and District Asylums ... ..	41	37	42	40	38	38
In Private Asylums ... ..	38	50	26	27	25	46
In Parochial Asylums ... ..	42	41	44	39	45	42
In Lunatic Wards of Poor-houses ... ..	6	7	6	6	7	4

The *death-rate* for the year was for private patients 6·4, and for pauper patients 8·1 per cent. of the average number resident. The rate for the last four years, and the quin-quennium 1880-84, is indicated in the following table:—

CLASSES OF PATIENTS.	Death-rates in all Classes of Establishments per cent. of the Number Resident.					
	1880-84.	1885.	1886.	1887.	1888.	1889.
Private Patients ... ..	7·0	8·0	6·7	5·8	6·4	6·0
Pauper Patients ... ..	8·1	8·1	7·9	8·1	8·1	7·7

and the proportion of deaths in the different classes of establishments is :

Royal and District Asylums	...	...	7·4
Private Asylums ... ..	...	...	6·4
Parochial Asylums ... ..	...	...	9·1
Lunatic Wards of Workhouses	...	...	4·9

The returns show a progressive diminution of *escapes*

during the last six years, the number per 100 of patients resident being :

1884	...	...	3.2	1887	...	...	2.5
1885	...	...	2.9	1888	...	...	2.3
1886	...	...	2.6	1889	...	...	2.0

One hundred and twenty-four *accidents* were reported during the year, of which nine ended fatally. Three of these were suicidal, two due to strangulation, and one to precipitation from a window. Of the other deaths one was due to drowning in an attempt to escape, two to accidental falls, two to asphyxia in bed during an epileptic fit, and one to extensive internal injuries caused by the patient falling over furniture during a struggle with an attendant. In 45 cases the accidents involved fractures of bones or dislocations of joints, caused in 25 instances by falls, in six by assaults by fellow-patients, and in six by struggling with patients or attendants; in six cases the injury was unintentionally self-inflicted, and in two cases the causes were unascertained.

As regards *lunatics in private dwellings*, the Report again speaks in favourable terms. The number of private patients so provided for on 1st January, 1890, was 128, a decrease of three as compared with the number at the corresponding date of 1889. There is an increase of 148 pauper patients so accommodated, as compared with 27 in the preceding year. There has been a small increase in most of the counties, and the increase is chiefly among patients boarded with strangers. Those living with strangers are 120 more than last year, while the increase of those living with friends is only 28. The propriety of removing to private dwellings such patients as have ceased to require detention or are unlikely to benefit by further asylum treatment, according to the report, is, with the exception of some few districts, becoming more and more recognized by parochial authorities. Dr. Lawson observes in his Report that "the insane in private dwellings are now more commonly provided for amongst people who are well off than used to be the case; that they are rarely entrusted to the indigent, and that, as a result of their association with a more prosperous class of society, they have undergone social elevation, and are less exposed to the risks of privation to which paupers living in the homes of the indigent are necessarily liable."

Taking into consideration the large number of patients in private dwellings, and the large amount of liberty allowed, casualties, though regrettable, are hardly unexpected, and during the year the following have been reported:—An old woman of 66 fell and fractured the neck of the femur, and died in consequence; another woman of 60, who was hemiplegic and subject to syncopal attacks, fell into the fire and fatally burned herself; a melancholic woman of 73 cut her throat seriously with a pair of scissors, but afterwards recovered, and was removed from the register of the Board; an old man of 75 was reported as being suspected of indecently interfering with little girls, and was removed to the asylum; an imbecile male patient of 17 was alleged to have indecently tampered with certain boys, but the reality of the offence was considered more than doubtful; another imbecile lad of 19, who was held to be sane enough to be responsible for his acts, was sentenced to 60 days' imprisonment for indecently assaulting a girl; a female patient, who had been boarded out since 1886, wandered away from her guardian, became exhausted, and perished in the snow; and another female, boarded out for 25 years, was criminally assaulted by a man, who was sentenced to three months' imprisonment.

The present Report contains a special review of the changes that have taken place in the numbers and distribution of the insane during the quinquennium ending with the past year, and it presents some interesting features. During the past 32 years the number of lunatics has increased 111 per cent., while the general population has only increased 35 per cent.; but it is carefully pointed out that these figures do not justify, as is so widely believed, the conclusion that insanity is rapidly on the increase. The increase in the total number of lunatics is to be explained not by any one cause, but is brought about by the operation of several factors. In the first place the term lunatic is now extended to a larger class than formerly. At different times and in different countries the standard of insanity varies according to the degree and kind of social development, and so the proportion of the population reckoned as of unsound mind likewise varies, and the tendency in Scotland during the past 32 years has been in the direction of "widening the limits of the degree of mental unsoundness needed to constitute insanity." Private patients, allowing for increase of population, have increased



during the past 32 years by 18 per cent., and this is really due to the fact that patients are now permitted to remain for longer periods in asylums, and not to any lowering of the death rate. The increase of 95 per cent. in the number of pauper patients in establishments, on the other hand, has a quite other explanation. Duration of residence is in no way accountable for the increase, for this has varied but little during the last six quinquennia, and a lower death-rate only partially accounts for it. The causes operating in the direction of the increase are many; the poor-law administration, while it has very materially diminished the number of ordinary paupers, has increasingly recognized the necessity for special relief in cases of mental affections; the capitation grant of 1874 has tended largely to augment the numbers of the insane poor; the Lunacy Act of 1857, by directing the attention of the parochial authorities to the duty laid upon them of sending to asylums such pauper lunatics as required asylum treatment, is to a very considerable extent accountable for the increase, and yet another cause is to be found in the improvement of asylums, which has led to their more extensive use.

The statistics as regards pauper lunatics in private dwellings reveal the fact that there has been a steady upward tendency in the number annually removed from asylums to private dwellings during the past 32 years, with the exception of the period immediately following the giving of the parliamentary grant in aid, which, for a certain limited time, tended to the keeping of patients in asylums. In the quinquennium 1860-64 the average annual number of pauper patients transferred from establishments to private dwellings was 36; in the five years 1885-89 this had risen to 231.

In addition to those we have mentioned, the Report contains many other interesting statements regarding the prevalence and distribution of insanity in Scotland, and it bears ample evidence that the interests of all classes of the insane, poor and paying alike, are zealously safeguarded, and that an earnest endeavour is constantly exercised to ensure that provision which is best suited to the requirements of those who come under the jurisdiction of the Board of Commissioners.

The appended table shows the number of lunatics on 1st January, 1890, and the mode in which they are distributed:—

## NUMBER OF LUNATICS ON 1ST JANUARY, 1890.

MODE OF DISTRIBUTION.	Male.	Female.	Total.	PRIVATE.			PAUPER.		
				M.	F.	T.	M.	F.	T.
In Royal and District Asylums	3366	3516	6882	726	755	1481	2640	2761	5401
" Private Asylums	47	109	156	47	109	156	...	...	...
" Parochial Asylums, <i>i.e.</i> , Lunatic Wards of Poorhouses with unrestricted Licences...	711	800	1511	...	...	...	711	800	1511
" Lunatic Wards of Poorhouses with restricted Licences	438	438	876	...	...	...	438	438	876
" Private Dwellings	1021	1552	2573	46	82	128	975	1470	2445
	5583	6415	11998	819	946	1765	4764	5469	10233
" Lunatic Department of General Prison	46	12	58	...	...	...	...	...	...
" Training Schools	157	89	246	83	54	137	74	35	109
Totals...	5786	6516	12302	902	1000	1902	4838	5504	10342

*Thirty-Ninth Report of the District, Criminal, and Private Lunatic Asylums in Ireland; with Appendices. 1890.*

This Report marks a new departure. It is not interesting from its bulk, for it is very short, nor from the direct information which it contains, which is very limited; but it presents one remarkable feature hitherto unknown in Irish Lunacy Blue Books. It is a distinct comfort to the critic, whose lot has compelled him year after year to peruse these documents, to be at last able to chronicle that the Irish Inspectors' Report is written in the English language, in a tongue which he who runs may read, in a dialect "to be understood of the vulgar."

The Report begins with the following summary of the number and distribution of the insane under care during the year 1889:—

	On 1st January, 1889.			On 1st January, 1890.			In-crease.
	Males.	Fe-males.	Total.	Males.	Fe-males.	Total.	
In District Asylums .....	5,888	4,937	10,825	6,037	5,143	11,180	355
„ Private Asylums .....	243	366	609	260	377	637	28
„ Gaols .....	—	—	—	1	—	1	1
„ Poor-houses .....	1,652	2,431	4,083	1,671	2,494	4,165	82
„ Central Asylum, Dundrum ...	140	28	168	146	30	176	8
	7,923	7,762	15,685	8,115	8,044	16,159	474

It would appear that the steady increase in the population of all classes of institutions for the insane, which is elsewhere observed, is taking place in Ireland also.

As the present Inspectors did not hold office during any part of 1889, they wisely decline responsibility for the statistics for that year, and make no deductions from them.

They enumerate briefly, somewhat after the manner of a Queen's Speech, the matters which will occupy their report for 1890.\*

These are —

(1.) "The condition of the insane in Ireland, scattered through the various workhouses, or wandering at large,"

\* The numbering and lettering of the clauses are ours.

which, we are told, "has never been considered satisfactory."

(a.) It would appear that though most, if not all, workhouses in Ireland contain lunatics, there is, in most cases, no legal power for their detention, and the only plea under which they are detained is that they are destitute persons. "It is, therefore, not to be wondered at that the provision for the proper care and maintenance of harmless lunatics and idiots in these institutions does not meet the requirements of this helpless class."

No, indeed! but it is to be wondered at why this happy-go-lucky state of things has been allowed to continue so long; nor can we help wondering whether our memory deceives us when it seems to recall warm encomiums passed by high officials in former times on the management and care of the insane in Irish workhouses.

(b.) "No provision of any sort exists for the supervision of the insane poor in private dwellings, or wandering at large, as in England under 16th and 17th Vic., cap. 97, sec. 66."

This subject has frequently been under consideration, and two or three still-born Parliamentary Bills have from time to time been brought forth. We may hope that the "neglected lunatic" has at last found advocates who are in earnest.

(2.) The licensed houses.

(a.) The condition of their inmates is said to be, "with some few exceptions, not entirely satisfactory. Many contain but two or three patients, whose contributions toward their support will hardly admit of due provision being made for their proper care."

(b.) "The extension in Ireland of public hospitals supported by public grants, or charitable institutions for the reception of the insane whose friends are able to contribute only a small sum for their support, would appear to be a want urgently felt in this country."

Why the example set in other countries has not been followed in Ireland with reference to lunatic hospitals we have never been able to understand. For so poor a country, and a country in which there is so much proper pride in regard of legal pauperism, we should have supposed that lunatic hospitals would have exactly met the requirements of the population. That no effort has been made of late years to emulate the English hospitals and Scotch Royal



asylums is perhaps due in part to the ignorance or apathy of those whose duty it should have been to draw public attention to this want, in part to the miserable mismanagement and consequent failure of the chartered asylum founded by Dean Swift. It will behove our Irish friends to give prompt consideration to this question. A recent annual report shows that one of the Scotch Royal asylums draws as many as 20 per cent. of its admissions from Ireland, and it is understood that at least two other of these institutions receive Irish patients in greater numbers. Taking these facts, together with the state of affairs revealed in the above extracts from the Inspectors' Report, it is clear that unless something is promptly done there will soon be no private patients left in Ireland.

(c.) The Inspectors are of opinion "that the provisions of the Act with reference to private asylums in Ireland (5th and 6th Vic., c. 123) are not sufficiently strictly carried out, especially as regards the keeping of the various books and the use of restraint, which latter, in some instances, appears to be used continuously, in others without any order from the physician, and without any record of its form and duration."

The Report winds up with a complimentary paragraph regarding Sir John Nugent and the late Dr. George Hatchell, in which we cannot but admire the adroitness with which the present Inspectors allow it to be seen that their predecessors, and not they, are responsible for "the system of rules and regulations for the care and protection of the insane," and for the construction of "almost all the district asylums."

No further reference is made to the latter institutions, but we have no doubt that though the condition of their inmates may not call for such immediate action as some of the other subjects dwelt on by the Inspectors, these gentlemen have given earnest and careful attention to the district asylums, and will soon effect material improvements in their management.

In Ireland it is unfortunately almost impossible, owing to the whole condition and history of the country, to arouse real public interest in anything not directly connected with politics or religion. Hence the state of many great public charities in that country. It is to some degree a compensatory advantage that very much more power and control are vested in the hands of the central authorities than is the

case in England and Scotland. A great deal rests with the Inspectors, who ought to be, and no doubt at present are, the trusted advisers of the Government in lunacy matters. We must again express our confident hope that their conduct will be marked by such honesty of purpose, wisdom in advising, and energy in making their influence felt, as may lead to the thorough reform so much needed in their department.

Among the Appendices to this Report is the Annual Report of the Medical Superintendent of the Irish Criminal Asylum, in the form of a letter addressed to the Inspectors. It contains a very singular statement. After remarking that the sum provided by the Treasury under the sub-head of victualling had been considerably exceeded, and pointing out that this was "due to the large quantity of stimulants and other extras ordered by the Visiting Physician," Dr. Ashe goes on to say:—

I have always willingly ordered extras in any case of enfeebled health, but I do not think that any reasonable fault can be found with the ordinary diet of the Institution for ordinary cases, or that it is desirable to provide stimulants for strong young men able to work on the farm or at other occupations. I had, indeed, some years ago succeeded in abolishing the use of beer altogether, and proposed, in introducing porter, that it should be used only as a strictly medical extra. I called the attention of the Visiting Physician during the year to the fact that the vote for victualling would necessarily be exceeded in consequence of the large amount of extras ordered, but without result. It is obvious that as far as possible I am bound to conform to his wishes in the matter; yet had it not been that very exceptional and unusual savings accrued under other sub-heads, one of which, indeed, cannot possibly accrue again, the total expenditure under the vote would have been exceeded to a large amount, and for this excess I should have been held personally liable by the Treasury.

While we quite recognize how undesirable it is to bring up questions of medical treatment, or medical etiquette, on fiscal grounds, we cannot but think that this remarkable Report throws an instructive light on the advantages that are likely to result from the institution of Visiting Physicians. Dr. Ashe appears to be in a pitiable case. If what he says in the last sentence we have quoted be literally correct, we suppose he is paid on a system resembling result fees, being liable to be mulcted in amounts equivalent to certain excesses which have been brought about contrary to his

wish. This arrangement seems almost incredible. The average cost per head in the Criminal Asylum during the year 1889, for maintenance only, and not including establishment charges, was £39 1s. 1d., and of this sum victualling cost £21 10s. 5d. (Append. B, Table 21).

The remaining Appendices are mainly taken up with statistical and fiscal details; some of great importance, some of the most trivial kind. We are glad that the inspectors disclaim responsibility for the statistics, etc.; and we presume they had not leisure to go into the question of revising the various tables. This portion of the Blue Book cannot be considered creditable, and we speak in no unfriendly spirit towards the inspectors—quite the reverse—when we point out some of its faults, and urge future amendment. This is a branch of their work in which the inspectors have certainly a right, not only to the aid of accurate records from the various asylums, but also, if necessary, to such clerical assistance in their own particular part of the job, as will save them from being compelled to issue documents so much below the ordinary level of official returns.

The table with which the Report begins appears to be incorrect, the number of patients in private asylums being given at page 3 as 637, while the various tables (Appendix F, 1 to 7) dealing specially with private asylum statistics, uniformly show and prove the number to be 631.

In Appendix C, Table 1, the “Limits of Accommodation” in the district asylums are said to be 10,775; yet there seems to be no doubt that these institutions contained at the close of the year 11,180 patients. Were the 405 patients in excess not “accommodated,” or what meaning attaches to the word “limits” in Ireland?

We have repeatedly given expression to the hope that the inspectors would do something to try and assimilate their statistical tables to those in use in England and Scotland. Seven years ago we trusted we had at last overcome the official *vis inertiae*. The tables of the Medico-Psychological Association were adopted with slight modifications. The result was not happy. The most important statistics appeared in such a form as to arouse something like the inextinguishable laughter of the gods when Vulcan essayed the office of cup-bearer. After this we were informed that the Treasury declined (who can wonder?) to be at the expense of publishing these tables. But surely such discreditable performances could be avoided. The various tots

and calculations need not be shaken up together in a bag and taken out at random, as appears to have been done in preparing the Report for 1882. Perhaps the Inspectors were right in not attempting any alterations in the routine tables until they can effect the desired change.

In the Report before us seven pages of Appendix C are wasted in giving the usual list of all the members of all the Boards of Governors of the Irish District Asylums. This table is apparently prepared for the sole delectation of Jeames Yellowplush. Its pompous enumeration of lords, spiritual and temporal, in all their glory, of baronets, knights, D.L.'s, and J.P.'s would delight the heart of that honest servitor, and may perhaps cost the Treasury very little; but we fail to see what advantage to the general public, whether medical or lay, can result therefrom. To the Right Hon. the Marquess of Dufferin and Ava, K.P., K.C.B., or the Right Hon. Viscount Templemore, G.C.B., D.L., J.P., it may be a gratification to know that their names figure in this Blue Book, with the added decoration of a duck's egg in the attendance column; but we doubt it, and we cannot think that the eminent services rendered to their country in other walks of life by these distinguished public servants reflect any particular lustre upon the Irish Asylums Department.

For some time after the unlucky year 1882 no table of supposed causes of mental disease in patients admitted was published. A distinguished member of our Association remonstrated with the authorities on this subject. The result was that a table of causes was reintroduced, not the table in use in England, but some antediluvian compilation which no modern has seen anything to resemble. We regret to find this particular form of table retained. We shall have said enough for it when we mention that "Pride" and "Anger" are two headings among the moral causes, and "Abuse of Medicine" and "Sedentary Habits" two among the physical.

If we might presume to advise the inspectors about this, and other, tables, we would say with Hamlet—"Oh! reform it altogether." We are entirely at a loss to conjecture why the late inspectors should have issued annually to the superintendents of asylums the amended tables above referred to, as we are informed they have done, and yet should not have made use of the information thus solicited, which actually some of the asylums continue to print in their annual reports.



Some of the non-medical tables would appear superfluous unless they are inserted for the purpose of enlivening the tedium of officialism by the introduction of the comic element. Appendix C, No. 29, sets forth "Statements of the actual quantities of food, medical stimulants, coal, etc., consumed"—(consumed is good)—in each district asylum during the year. "Et cetera" seems to consist chiefly of washing materials, gas, and straw. The quantity of straw "consumed," presumably for bedding, may serve as some index to the mode of treatment adopted in some asylums; but what interest can it be to anybody (except "Barrington") to know that a certain asylum consumes "976 stones Barrington XX. T.C." soap? The next table (30) details with great minuteness the articles of clothing and bedding made by the patients in district asylums during the year. It may be instructive to note, as showing the progress of culture, that many of the asylums have rejected the nasty old word "shift," and have adopted the elegant indefiniteness of the bisexual "chemise;" but it would really be more to the purpose if we were told how often these necessary, if impolite, garments are changed in the week.

Statistical tables and returns are not subjects of the same importance as much of the other work which is ready for the inspectors to take up, and which they seem rightly to recognize as being their first duty. Still, we trust that in the coming year they may have time and authority to reorganize this part of their business also.

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*Manual Training in Education.* By C. M. WOODWARD,  
Director of the Manual Training School of Washington  
University, St. Louis, M.O.

*Manual of Instruction for giving Swedish Movement and  
Massage Treatment.* By Prof. HARTVIG NISSEN.

The object of the first-named manual is to set "forth the nature and positive value of manual training in a scheme of general education." The author begins by stating what he considers the defects of the present curriculum. One of the chief of these defects is that it is not "general education." The introduction of a new subject into the ordinary school course, to which a certain proportion of time must be given, "necessitates an entire revision of the school time-table; but

this is no disadvantage in Mr. Woodward's eyes, for he devotes a large part of his book to showing that the introduction of manual training into a school has most beneficial results on other studies. He finds that in these schools the boys do not leave at so early an age as is otherwise usual; that even those who do not intend to go to the universities, or to enter any of the learned professions, will stay on until the age of seventeen or eighteen instead of leaving at fourteen. This fact he attributes to the great interest taken by the boys in this special subject, and to the increased intelligence they throw into other studies. In speaking of the unsatisfactory and uninteresting nature of the present schools curriculum, Mr. Woodward quotes President Eliot, of Harvard University: "Frequent complaints are made of overpressure in the public schools, but it is not work which causes over-fatigue as much as lack of interest and lack of conscious progress. The sense that, work as he may, he is not accomplishing anything, will tell upon the strongest adult, much more than upon a child. One hour of work in which he can take no intelligent interest will wear him out more than two hours of work in which he cannot help being interested. Now the trouble with much of the work in the present school is that it is performed by, and, inevitably uninteresting to, the childish mind. The best way to diminish strain is to increase interest, attractiveness, and the sense of achievement and growth." The manual training a boy gets in school is not special, as in the technical school; nor is its object industrial. The industrial schools do not aim so much at training the intelligence of the boys, as at producing the greatest quantity of saleable goods, by the teaching of some special trade. The scope of the whole course of manual training may be included in the expression "preparatory to specialities, without being special itself." A boy who has been through one of these schools has a much wider choice of professions than the boy who has been through one of the ordinary high schools, for he has learnt that he has hands as well as brains, and has some idea in which direction his talents and inclinations lie. Without this training a boy, as a rule, knows nothing beyond head work, and it is this one-sidedness which causes so many to become clerks and teachers, thus overstocking these professions. In answer to the question as to what manual labour is, Mr. Woodward says: "Manual training is limited to teaching and learning the use of tools, the methods of

working materials, and the construction and use of shop drawings, where the mastery of tools, materials, and methods is the immediate end in view. The instruction and practice deals with general principles, and the forms used in exercises are as typical as possible. While in hand they are particular, definite, and precise, because every concrete exercise must be particular, however general may be the application of the ideas involved." Drawing is an essential part of the training, for every pupil must learn how to express his own ideas before executing them, and also how to interpret correctly the drawings of others.

The author devotes one chapter to the consideration of the fruits of manual training, to some of which allusion has already been made. He maintains that manual training supplies culture to boys, who from their lack of literary tastes would be uninfluenced by a purely literary course of study; and he quotes Colonel Jacobson, who says: "Manual training means not fewer, but more, ladies and gentlemen to the acre." Fourteen points are enumerated as "fruits"—too many to touch on in detail here. The most interesting from a medical point of view is the testimony produced from the boys themselves, as well as from their parents, of the improved health and spirits of many delicate pupils, as one result of their training. This effect might not be so prominent in England, where outdoor pursuits and games are so much more generally followed, than is apparently the case in America. One extract after another is given from the letters of both boys and parents testifying to the great gain the boys have derived from their training. Besides their increased interest in their school work, they have been able to hold their own in their various professions in a way otherwise impossible. Manual training takes up two hours of the day's school work, five hours are devoted to mathematics, science, and literature (or language), and one hour to drawing. For the description of the work done and of the methods followed in the "shops," we must refer our readers to the book itself.

Corresponding work for girls in the form of classes for needlework, cookery, and laundry work is incidentally mentioned. Mr. Woodward is a thorough enthusiast, and has an answer ready for all objections; and those who wish to study the subject will gain much useful information from this little book, which, as the preface tells us, is written mainly for English readers.

The object of "A Manual of Instruction for giving

Swedish Movement and Massage Treatment," by Professor Hartvig Nissen, is threefold. First, to describe to the physician, or his operator, a certain number of manipulations and movements, which may be applied without specially skilled labour; secondly, to remove the ignorance and prejudices of those who would class the whole treatment as "humbug;" and thirdly, to show that the "Swedish movement cure," to which massage is a valuable adjunct, is a thing apart from active gymnastics. This manual will not be of much use to a person having no previous practical knowledge, but one who has learnt to use his hands without much theoretical training will find a good deal of valuable information and assistance in these pages. The author insists with great earnestness on the fact that "massage" is only a part of the passive movements, and constitutes a very small portion of the Swedish treatment. The term "Passive Movements" sounds at first somewhat anomalous, but the term is explained as including "all movements performed by the physician upon the patient, the latter remaining passive." These movements include rubbings, pressures, vibrations, etc., as well as rotations, bendings, stretchings, and so on of the whole limb or a part. The writer points out the fact that whilst many physicians think that there may be something in it, they do not always take the trouble to find out whether the person they employ is properly qualified, or only "an old auntie" who has rubbed a little and thinks she can rub more without further instruction. Several prescriptions are given, which form a very good guide to the beginner. All the exercises described can be performed without the aid of special apparatus—a great convenience where the treatment has to be carried on in the patient's room. The use of mechanism instead of the human hand is only touched upon. Vibratory movements, being most exhaustive to the operator as well as beneficial to the patient, might be more widely utilized by using a machine such as the one mentioned. Some cases are referred to in detail at the end, the signal success of which should be a great encouragement to those desirous of trying the system on their own persons or on others. Space will not permit us to quote more than one of these. "A gentleman, thirty years old, sprained his right ankle by a fall, and had been on crutches for eight months, when he came to us for treatment, May, 1883. There was no flexibility of the ankle, which was very tender and swollen. After six weeks' treatment once a day the patient was cured."



*The Journal of Maria Baskirtseff.* Translated by MATHILDE BLIND. Cassell and Co. Two Vols. 1890.

The handsomely got-up and well-edited translation from the original French deserves more than a passing notice from our Journal. The book has been properly called a psychological study, and has made much stir in literary and general society. Nowadays most novels and all poems are what may be called psychological studies, and the great and, we believe, increasing tendency of French novels especially, is to be introspective and self-analytic; the minutest differences of feeling and expression are studied and described with the painful exactness of a hypochondriac.

Whether we take the work under review or one of the so-called psychological novels of Paul Bourget, we find the same exact dissection of feelings. There was a time when the poet and the novelist delighted in portraying nature as it appeared to him, but now it is feeling, passions, and desires which occupy the attention.

This, as we have already noticed, is more frequent and is carried to a further point in France than in England. We do not believe that the tendency is a healthy one, and we recently heard one French critic say that, at present, in France, the artist and the novelist are not content with stripping women of their clothes.

Such studies and analyses are of interest to us, and may, with advantage, be read; the real evil is when no other literary food is taken. We are believers in the unconsciousness of perfectly healthy function; when we run the risk of becoming conscious we become morbid. To know one's self may be a good thing, but to know much of the separate actions of inter-dependent parts of the body or mind leads to evil. The book before us is one of the few fairly successful attempts at a truthful journal. It has been said that Pepys and Rousseau represent the complete diarists; for our part, we believe the former was nearly truthful, because he wrote for himself, but the latter was a *poseur* from first to last, writing a journal in public and for the public. Maria Baskirtseff wrote a journal which stands half-way between that of Pepys and that of Rousseau, for though written avowedly for the public eye, yet it bears the evidence of truthfulness on its face. It is written by a young, ardent, and impulsive girl, who tried hard to represent honestly what she really felt. There is a living human feeling in it which makes it appeal very directly to all careful readers,

and we would warn those who read this review not to be hasty in throwing down the book after the first hundred pages. It is worth while getting over the feeling of disgust caused by the youthful vanity of the author, and to pursue the sad mental developments to the end.

Great differences of opinion have been expressed as to the value of this book—some, like Cardinal Manning, praising it highly, while other men of note look upon it as vapid and much overrated. We have found that elderly men, who have seen much of the world, esteem it highly, while ladies, especially English ladies, condemn the book and speak of it as likely to have an evil influence on the young.

The journal gives the sad life-history of a Russian girl of high social rank, who was gifted with beauty, wealth, and talents, especially of the artistic kind, and yet who felt that she should never live long enough to win distinction by these means, and so determined to gain posthumous fame, at least, by writing a truthful diary, expressing her longings, her feelings, and her desires. The result is the book before us; we need hardly say that it is, after all, only part of the truth; no one, not even Pepys in his cryptogram, could put down all his thoughts without producing a disgusting and repellent result.

We each know worse of ourselves than our worst enemies ever imagined of us, and so; though Maria Baskirtseff does put on record many of her little weaknesses, they are put down with a colouring and surrounding which shades off the crudity of naked truth. The study is, however, worth considering.

The authoress, surrounded by devoted friends and by every luxury which wealth could provide, still feels the vanity of all things and longs for distinction of her own creation. She, in word at least, contemns her surroundings; yet we see that she would have ill-spared the luxuries she professes to hate, but which have become necessities to her. Her character, as displayed before the reader, is consistent. With her ardent, restless longing for power and personal distinction, there is mixed a most inordinate vanity. She is never tired of admiring herself, her dress, and her abilities; she writes of herself as looking charming and pretty; she lusts for power and admiration, differing, however, from most women in placing the lust of power before the desire for man's admiration. She was not indifferent, however, to men.

In the journal there is a most amusing description of her

first love affair. She fell passionately in love with a nobleman to whom she had never spoken, and who was leading a distinctly irregular life; her knowledge of life was in advance of her years; later, she fell in love, or thought she did, with a passionate young Italian, and in this case she did very unconventional things. In the course of this affair she tortured her lover and herself with her uncertainty and doubt; she was always analyzing her feelings toward her lover, and could not satisfy herself that her love was genuine. The description of her doubts is very like that which one so frequently hears from the patients who are morally hypochondriacal. We think her Italian lover was well out of the marriage. The last *affaire de cœur* was sad and pathetic, and perhaps, the most touching scenes in the whole book are those describing the two artists dying of a like disease seeking each other's society, well knowing that their friendship was but one of sorrow and of parting. The two brilliant lives faded out together.

As might have been expected in such a character, the lust for power and for admiration was associated with passionate jealousy, and nothing is more honest and feminine than her expressed hatred of her artistic rival. Loss of voice, probably due to phthisis, drove her to art instead of music, and in this she soon distinguished herself. She was very facile of hand, her taste was good, and her judgment correct, so that, beside her journal, some of her pictures may live to carry on her name.

When working in the studio she strove hard and constantly for pre-eminence, but chiefly with the desire to beat her rival, and her hatred of this rival was fiendish, and one seems to see the Tartar beneath the French veneer. She gloried in her successes, and the acceptance of her picture for the salon gave her very natural pleasure.

Hers was a passionate and refined nature, unhealthy in its feverish development, and, like a hot-house plant, easily nipped and destroyed. With her artistic gifts there was very little real sympathy or love in her nature, and no real greatness could have been developed from such a selfish nature; self was her god, and parents and relations were necessary evils, and were accepted so long as they did not interfere with her life's scheme. We believe she was heartless.

Her religious ideas began with a form of idolatry, as shown by her prayers for toys or for ability to learn

English, and slowly passed through simple religious indifference of the French type to infidelity.

The whole journal, though in two rather large volumes, is worth reading. It is light enough for holiday hours and yet is of sufficient interest to make one think. We believe most readers will leave the book with a feeling of sadness that one so young and so gifted should have had no higher motives and no nobler ideal of life.

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*Life of Dorothea Lynde Dix.* By FRANCIS TIFFANY. Houghton, Mifflin, and Co., Boston, 1890. (With portrait.) (First Notice).

This work has been eagerly looked forward to, and its appearance must be welcome to all the friends of the good woman whose life is here written. Miss Dix has been fortunate in her biographer. Her memory has not been injured by extravagant eulogy, but the great work she accomplished and the nobility of her character have been fully recognized. The discrimination exercised by Mr. Tiffany in the delineation of her character is a model for imitation for other biographers. The author is also to be commended for having restricted his work within moderate limits, the result being one octavo volume containing barely 400 pages. Dorothea Dix was born in the State of Maine, April 4, 1802. She was, however, a Massachusetts woman by ancestry and education. Her father was of unstable character, and led an aimless, wandering life. The child was miserable, and escaped when twelve years old to her grandmother, who resided at Boston, where she enjoyed the advantages of school education, while Madam Dix brought her up in the stern and inexorable fashion so common in the old Puritan days. She appears to have derived her resolute will from this lady, and from her grandfather Dr. Elijah Dix, a physician in Worcester, Mass., and subsequently a resident in Boston, where he established a drug store. He also speculated in land, and became the founder of Dixmont and Dixfield, in Maine. The birth-place of Miss Dix was only a short distance from the former place. We do not find any reference to Miss Dix's mother, except the statement that "her immediate parents were lacking in energetic fibre."

Teaching was her first occupation, and although in her teens, she commanded the respect of her scholars, first at



Worcester and then at Boston. It was not long before she established another school for poor and neglected children, one which proved to be the nucleus of a similar work on a much larger scale. Her health broke down, and she left Boston for a period for Portsmouth, Rhode Island, where she undertook the education of Dr. Channing's children. "Her duties were light, she could be much in the open air, and at last her passion for hero-worship found satisfaction in close intimacy with an actual human being, so exalted in intellect and saintly in character, that the more nearly she came in contact with him, the deeper grew her veneration" (p. 23). In 1830 Miss Dix accompanied Dr. Channing's family to St. Croix, one of the West India Islands, and returned in the spring of the following year to Boston. There she endeavoured to make a livelihood by school keeping, and pursued her work with a lofty ideal, fostered by the preaching of Channing and the eloquence of his colleague, Styles Gannett. After five years' school work, during which she suffered much from ill-health, she became, at the age of thirty-three, unable to perform her duties any longer. "A hectic fever had long been running in her blood, which raised to a perilous intensity the self-sacrificing impulses and the moral and religious ardour of her temperament. . . The mental and moral powers, which, after once they had found their adequate field of action, were to sweep irresistibly before her the legislatures of more than twenty great States of the Union, which were again and again to carry by storm the Senate and House of Representatives of the Federal Congress in Washington, and which, in Europe, were to win a like triumph in the British Parliament, and to revolutionize the lunacy legislation in Scotland,—mental and moral powers of such an order had so far been set only to the petty task of teaching, disciplining, and stimulating twenty or thirty average children" (p. 43). Change of scene was now a necessity for Miss Dix, and she came to England, intending to proceed afterwards to the South of France or Italy. Her prostration, however, demanded rest, and this she fortunately found in the hospitable house of Mr. W. Rathbone, of Liverpool. Lasting friendships were formed, and no doubt she derived a fresh impulse towards benevolent and humane work from the estimable Unitarian family in which her lot was unexpectedly cast, in consequence of an introduction from Channing.

In 1837 Miss Dix returned to New England, but not to resume her teaching. Other work was in store for her.

In our next number we shall resume our notice of this interesting volume, hoping that in the meantime those who are interested in the history of the amelioration of the condition of the insane in the United States, of which movement Miss Dix was the central figure, will possess themselves of the work itself. No British asylum library ought to be without a copy.

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*Golden Bullets: a story in the days of Akber and Elizabeth.*

By W. W. IRELAND. Edinburgh: Bell and Bradfute.  
London: Simpkin, Marshall and Co. 1890.

Dr. Ireland may be congratulated on having succeeded where more than one big man before him has failed. It is not given to many, even among the great ones of literature, to write in a way acceptable to men and to boys, to produce work which may be criticized in the smoking room of the "Athenæum" or the "Savile," and which may also be trusted to keep the youngsters out of mischief of a wet afternoon. Charles Kingsley, in his "Water Babies," did not succeed in interesting the playroom, while on the other hand, who remembers anything, except through "Robinson Crusoe," of Daniel Defoe? The work now before us has, however, one material disadvantage in its very excellencies, inevitably suggesting as it does comparison with the tales of Louis Stevenson and the romances of Walter Scott. It is no small praise to say that without being less readable, its tone is healthier than that of the "Master of Ballantrae," while the description of Akber in his son's camp has something of the ring of the "Talisman" about it, recalling indeed one of Scott's finest passages about the great Saladin. Dr. Ireland has the characteristic defect of his great predecessor. Stephen Ashbourne, the hero of "Golden Bullets," is about as colourless a person as Ivanhoe, and just as we rise from Scott with memories of Di Vernon and of Rebecca, of Effie Deans, or of Lucy, rather than of his titular heroes, so, on closing "Golden Bullets," we recall not so much Stephen Ashbourne or Benedict de Goës, or even Akber himself as the heroic Sultana, the Circassian bride of the Emperor, and the two Eastern wives of Ashbourne, all of them sketches full of vivacity and insight, pleasant and piquant withal. With respect to incident, the tale is by no means deficient. Stephen Ashbourne, the grandson of an

old city goldsmith, brought up largely in solitude and accustomed to brooding thoughts, becomes profoundly dissatisfied with "England as she is governed" under the Gloriana of Spenser. We almost fear that we are committed to an "introspective" novel, that we shall either have to support the insufferable prosiness of a Robert Elsmere or to study the inner emotions of "a pushing young particle" as described by an imitator of those linen drapers of literature, Howells and James. Dr. Ireland, however, understands himself and his readers too well for this, he understands too "the spacious times of great Elizabeth," and accordingly we find restrained dissatisfaction with "the home life," finding its natural and healthy outlet in foreign adventure, adventure which begins in mercantile enterprise and ends on the battlefield. Those were days when each man had to be something of everything, when there was a touch of the statesman about the "man on 'change," and more than a touch of the warrior about the officers and seamen of our mercantile marine. It is not too much to say that Dr. Ireland makes these stirring days re-live for us in his pages, nor will the veriest schoolboy fail to catch some just idea of everyday life in a century which knew not in India of the English *raj*.

How Stephen comes to Surat, and how from Surat he came to the court and presence of the Great Mogul we must leave our readers to find out for themselves; it will be enough to remark that the tale proceeds by easy stages and is constructed with that highest art in story telling, the art which, like that of the mole and the miner, advances steadily but always by concealed ways. Dr. Ireland certainly deserves to be congratulated on the manner in which he tells us of a time of bloodshed and much cruelty without any unseemly dwelling over details better left undetailed; in this respect his literary "betters," as Mr. Stevenson and Mr. Rider Haggard might possibly consider themselves, might well take a lesson from the kindly Edinburgh physician, whose calling brings him too often into the presence of suffering for him to treat it lightly, still less to linger over it unnecessarily. The fighting, however, is "well done"; there is all the rapidity, excitement, and confusion of a night skirmish in the account of the rescue of Irene by Ashbourne, while there is also "more than a bit" of "the genuine Marryatt" in the opening seafight where the English merchantman does battle with the Portuguese carrack.

It is hardly saying more than is just to express an opinion that history itself will be enriched by Dr. Ireland's masterly portraiture of the great Akber, who is, of course, a historical personage, treated of at length in most Indian histories and sketched with considerable ability by an unknown writer in the "*Oriental Annual*" (London: Bentley, 1838), to which we would refer those who may be interested to follow the Mogul's career beyond the bounds which Dr. Ireland assigns himself in the work under notice. Of Akber he remarks very justly that while it might have been said of the great statesmen and soldiers of Europe that from their mental energy they were the undeniable products of the age, with the Mogul Emperor this was not so. "In spite of the Mogul traditions of his family he was humane and beneficent. Though a warrior and a conqueror he was a just ruler and a mild and wise legislator. Though brought up in tents, he was polished and urbane. Excelling in athletic sports, he was yet fond of literary pursuits. Reared in a fanatical religion, he was the most tolerant of rulers. Continually successful, he was ever moderate, and preserved an even temper under contradiction. His mental energy was astonishing. He took little sleep—according to one of the Jesuits—only three hours out of the twenty-four. He only ate once a day. He abstained from animal food for months at a time, living on milk, rice, and sweetmeats. He was most attentive to business, and listened to reports which were made to him from different parts of the empire. He was accessible to all his subjects and heard causes every day. He was particularly gracious in receiving the presents of poor people, sometimes putting their gifts in his bosom. He delighted in music and painting, and was fond of the society of men of letters. He got translations made from the sacred books, philosophy, and poetry of India. In everything he undertook he entered heart and soul" (p. 59). Abul Fazl, Chand Bibi the Hindoo Joan of Arc, and the savage Jehangir are all historical characters and are well introduced. The character of the last-named is limned with something of indecision, but Jehangir is a historical problem, one of those rulers whose virtues and vices operated in somewhat unexpected directions, and who gave themselves, before coming to the throne, a more evil name than they afterwards deserved.

Although the present work is full of "plot" and incident, we do not fail to get important glimpses into some of the more vital causes underlying the surface of things. While



in England "the poorer classes were destined by providence for a low condition, and it was the duty of their betters to keep them in it, in India, save the Emperor, everyone was equal." His favour raised the lowest to the highest offices. "He was the owner of all the land in his dominions, and the estates he granted, on the death of the life-occupant reverted to the Sovereign" (p. 87).

Among the "side views" which this admirable romance affords us we get a fine sketch of Agra in the days of its splendour (p. 91), of life within a court seraglio (p. 201), and, above all, a most interesting attempt to realize for us the daily routine of an Eastern home. Occasionally we feel the meaning of being "dark with excess of light," Dr. Ireland, from his own stores of knowledge, assuming a rapidity of conception in the minds of his readers such as we can only say he will be luckier than most authors if he succeeds in awaking. What was the point of the turpitude of the Jesuit Nobili who "baptized low caste Hindus through a straw?" (p. 93). A little thought will reveal that such a procedure was a gross violation of those principles of equality which form the basis of the Christian religion. To pretend that it was beneath his "caste" to touch the lower grade of native was to ingratiate himself with the Brahmin and high caste Hindus at the cost of all that Christianity is as a gospel which the poor "have preached unto them." But the gifted author dashes in his fact in the most casual manner, and is off to another and lighter subject without a word of interpretation. Sometimes this brevity is very telling, however, as on p. 164, where the pious idol worshipper offers a startling *apologia*, which is left unrefuted.

Dr. Ireland will, we are sure, forgive us one word of remonstrance in conclusion. Accuracy is the soul of science, and Dr. Ireland bears a name honoured among the professors of "exact" learning. But accuracy is not the soul of storytelling, nor is a high-spirited tale of adventure the place to inculcate reformed notions of spelling Sanskrit, Persian, or Hindi. Dr. Ireland's "munchi" is hardly recognizable as older storytellers' "moonshee," while we do not suppose that there exists a schoolboy who will even have grasped that our good old fireworshipping friend, the Parsee, is intended when in "Golden Bullets" we read of the "farsi." It might even be easy to find adult readers who have been baffled by this "Eastern spelling reform."

*Chronic Intoxication by Morphine.* By Dr. L. R. RÉGNIER.  
Paris, 1890. Publications du Progrès Médical.

Dr. Régnier makes the important distinction, among morphia or opium *habitués*, of those who use the drug for the sole purpose of combatting some sensory trouble, and of those who take the drug for the pleasurable sensations which it imparts, and subsequently for the purpose of removing the terrible state of depression which occurs after the above effects have worn off. The former class of patients he terms the morphinized (morphinisés), the latter the morphino-maniacs (morphinomanes). The distinction is an essential one, for whilst those patients who employ morphia to relieve pain, and for no other purpose, may suffer from the signs of chronic poisoning, yet they do not suffer to anything like the same extent, and the peculiar nervous symptoms which belong to the morphia habit are not witnessed. It is true that in the latter case the habit starts as a rule in the use of morphia to allay pain, but the habit is not acquired till the drug is taken for its own sake.

First as to the morphinized; those who use opium or morphia as a palliative, Dr. Régnier points out that pain causes a marked tolerance for the drug, and he says that the bone pains of syphilis exhibit this more especially. Next he asserts that there is marked tolerance in mental disease, especially when there is excitement, and he refers to the practice of some doctors, amongst them A. Voisin, of giving very large doses of morphia to the extent even of 18 grains per diem. In spite of these doses the great majority of patients are said to show no signs of poisoning even after protracted treatment, but, on the contrary, an improved appetite, and a gain in embonpoint; nor, on the withdrawal of the treatment, do any of the grave symptoms appear such as are witnessed in the case of morphino-maniacs. It must not, however, be concluded that the insane are proof against the morphia habit; there are not a few who become victims to it.

Leaving this upper limit of insusceptibility, can we determine the lower limit, *i.e.*, discover that dose which can be given with safety during a long period, *e.g.*, not less than six months without producing any symptoms of chronic poisoning, but which may not be overstepped without risk in the long run? Such limiting dose can be determined, and

is stated by the author to be 0.05 gramme or  $\frac{3}{4}$  grain of morphia: this dose refers to the subcutaneous injection. Given by the mouth, Dr. Régnier admits the probability of a lessened activity, but he says we do not possess sufficient facts to determine the limiting dose—for laudanum he puts it at about two to three drachms. In the case of infants, the dose which leads to chronic poisoning is very small.

Among the symptoms of chronic poisoning by hypodermic injection, Régnier lays great stress on the tendency to the formation of abscesses, and he discusses their pathology; the occurrence of albuminuria and glycosuria is adverted to as, however, rare occurrences. It is not necessary to refer to the disturbances of the alimentary tract, and the marasmic state which sooner or later appears, but there are some nerve troubles which merit attention. Amongst these we find: the occasional occurrence of dilated pupils, and more rarely of unequal pupils—disturbances of sensation, such as zones of anæsthesia or hyperæsthesia, perverted or lessened tactile sensibility, diminished acuteness of vision—lessened reflex action, *e.g.*, abolished patellar tendon reflex, this latter may be present, according to Régnier, along with a tendency to ankle clonus. Tremblings of the limbs are described, but are said to be easily distinguishable from the tremor of alcoholic delirium and from that of paralysis agitans. Accompanying these symptoms the cerebrum may fail—memory, judgment, will being impaired; in some patients the picture presented may be that of true dementia. Delirium with hallucinations may set in, or hallucinations, in particular of vision, exist alone. It appears, however, that hallucinations form a rare symptom. Certain alienists have been unwilling to admit the occurrence of hallucinations during the waking stage as an effect of morphia, but since Laehr first described such cases, other undoubted instances have been put on record in which no other neurotic element, *e.g.*, hysteria, could be detected, nor any other poison, *e.g.*, alcohol. No new light is thrown upon the pathology of morphia poisoning.

Morphino-mania is next described, and amongst the curious facts relating to this disease we learn that in Paris there are actual institutions for the hypodermic injection of morphia—a revelation which needs no comment! The statistics and the symptomatic features of the disease are described. It is in the chronic poisoning of morphinomania that the nervous symptoms above-mentioned figure more especially—in addition, moral perversion amounting to

a moral insanity must be recorded. The medico-legal aspects of the actions of morphino-maniacs are considered towards the end of the chapter. Dr. Régnier teaches that each case must be dealt with on its merits after careful examination of the patient, but he insists that an essential point to be determined is whether the patient was in a condition of temporary abstinence from morphia or not—the responsibility is less if in such state, and especially if the privation from morphia has lasted some hours. Criminal acts committed in such state have in view mostly the obtaining of the drug; if, therefore, the accused should have been in possession of the drug before the commission of the act, this act would bear another complexion as to its motive.

In detecting the disease the cunning of the patient may completely outwit the medical man; it is therefore necessary to remember that the examination of the urine for morphia may yield conclusive proof of the habit, but precautions must be taken to ensure that the urine is really the patient's.

Lastly, the interesting phenomena of abstinence are detailed, and the several modes of treatment considered. The records of a large number of cases complete the work. We have much pleasure in recommending Dr. Régnier's treatise as a carefully-executed work.

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*Mad Doctors, by one of them: Being a Defence of asylum physicians against recent aspersions cast upon them, and an examination into the functions of the Lunacy Commission, together with a scheme of Lunacy Reform.*

This is the scope of the pamphlet published anonymously by Messrs. Swan and Sonnenschein, and sold for one shilling.

We can vouch for the stimulating shilling's worth, and feel sure that those of our readers who buy and read it will have their fun for their money, and will certainly be impressed with the directness and aim of the writer and the unflinching character of his criticisms.

As we have said, the name is concealed, and we have no clue as to the writer, and we should prefer not to discover it, for though vigorous, the paper is, to our thinking, too personal, so that it is in danger of giving the idea, however unjustly, that personal antipathy had something to do with its origin. It attacks undoubted abuses, and suggests



remedies, and as a piece of strong writing we welcome it, not overlooking its faults of taste.

The pamphlet is divided into five chapters, consisting of an introduction, a chapter on lunatics at large, one on lunatics under key, another on remedial proposals, and finally a summary of the whole. The author shows himself in the introduction to be a medical agnostic and one who would not give very blind faith to his professional brethren, unless he were ill. He ranges himself among the *practical* men as against the more scientific, though for the life of us we cannot see the advantage of a man who is only practical over one who, besides that, uses the experience of others as recorded in books and papers. Doubtless there are a large number of useful practical men in our branch of the profession, men whom it would be hard to equal and impossible to beat in the amount of practical good work they do in the world ; but with all their virtues we believe their power dies with them and does not in the end lead to such good results for the race as will follow on good scientific work. But to our task of reviewing. We quite agree with the author that the golden rule of medicine is to avert the tendency to death and to place the patient in the best possible conditions for recovery. The reason given in the introduction for the appearance of the *brochure* is that "an insignificant clique in the London County Council has issued a quasi-medical report which deals with the treatment of lunatics, and is absolutely unique in the number of feeble commonplaces it contains." This is the text, and our author sticks pretty closely to it. As to the taste of the personal part of the paper we will not inquire, but men who feel strongly act at times hastily, or with an appearance of temper, which is not altogether without use when grave social questions are at stake. And what more grave can a man feel to be at stake than the honour of himself, and of his friends and fellow-workers? No one will deny that for the treatment of the insane practical experience is worth a ton of theory, and that he makes the best Commissioner who has had the most experience of the insane in all their relationships. We cannot agree with the author in all he says as to the inspection of asylums and of the insane, though we do feel that the Commissioners, as at present constituted, are not a body numerous and strong enough to do all that is required of them. They do their work as well as they can, but they are over-burdened.

We will summarize the chapter on remedial proposals, as this shows the scope of the work. Proposal 1 is that there should be more special reception wards for the acute, presumably curable cases; 2, That the Commissioners should be done away with, as, according to the writer, they have a number of general fads, and a good many particular ones, and are quite unable to be of service to the insane; 3, Instead of the Commissioners there should be district inspectors appointed for each division of the country; these inspectors are to be numerous, and are to have personal knowledge of lunacy and of asylums (we wonder where they are to be found?); 4, these inspectors would have also frequently to visit the wards of the workhouses in which insane patients are detained. Proposal 5 is that the present mode of asylum management should continue, but that medical officers should be increased so that none has more than 300 under his care at a time; other changes are suggested, such as having an assistant superintendent, under such conditions as will develop the clinical work of asylums. 6, There should be in every large town receiving hospitals for all acute nervous mental patients outside certification.

The whole plan may be regarded as a practical substitution of the scheme of the County Council, with the essential difference that it is arranged by a man with daily experience of the requirements and with a just appreciation of what can and what cannot be done by the means suggested. The pamphlet must be read to be appreciated, and is so vigorous that it gives one quite a healthy stimulus to go on in the path of duty, however toilsome it may be just now.

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*Locke.* By ALEXANDER CAMPBELL FRASER, Hon. D.C.L. Oxford, Professor of Logic and Metaphysics, University of Edinburgh. William Blackwood and Sons: Edinburgh and London. 1890. (With portrait.)

One more admirable addition to the series of the "Philosophical Classics for English Readers," edited by Professor William Knight, whose selection of writers has been most fortunate. It is a great quality in an editor to know and to choose the best men for the special work assigned them. Few characters appeal more powerfully to the intelligence and even the affection of British thinkers than John Locke. He was a philosopher, a psychologist, a hard thinker;

but he was something more. He was not a cold stoic, but a man of deep feeling and a lover of his kind. He studied chemistry and medicine, and *materia medica*. "And so it came about that before 1666 he was more or less engaged in a sort of amateur medical practice in Oxford, in partnership with his old friend Dr. Thomas. Though he never graduated as a doctor, nor even as a bachelor in medicine till 1674, he was now and afterwards known among his friends as 'Doctor Locke.' But his professional connection with the faculty was always rather loose and uncertain. It may have been that the philosophic temperament made professional trammels and routine irksome, and that he instinctively preferred the hazards of freedom to submission to rules which might compromise the development of his individual genius. His health, even now, was constitutionally indifferent. He inherited a delicacy which ended in chronic consumption with periodical attacks of asthma, against all of which he contended through life with characteristic forethought and contrivance. To the end he was an amateur medical inquirer, and was ready, upon occasion, to advise his friends about their health long after he had abandoned the idea of living by the practice of medicine" (p. 20).

Locke accidentally met with Lord Ashley (first Lord Shaftesbury), and a friendship was formed between them which exercised a mutual influence in the direction of freedom of intellect and the love of civil and religious liberty. In 1667 he resided in the Strand, and was the medical adviser and agent of this nobleman, and was also tutor to his son. Few, probably, are aware that for 15 years "he shared fortune and home with the most remarkable man in affairs in Charles the Second's reign, and was confidential friend of the most sagacious and powerful statesman in England." Locke was introduced to Sydenham, and was intimate with him during the remaining twenty years of the latter's life. It is very interesting to read what Sydenham wrote about his friend in his dedication of "*Fevers*" to Mapletoft. "You know how thoroughly my method is approved of by an intimate and common friend of ours, and one who has closely and exhaustively examined the subject—I mean Mr. John Locke—a man whom, in the acuteness of his judgment, and in the simplicity, that is, in the excellence of his manners, I confidently declare to have amongst the men of our time few equals and no superior" (p. 30).

In 1668 Locke was elected F.R.S., but he does not appear

to have interested himself in the proceedings of the society. At a friendly meeting in his own house in 1670-71 he "was led to devote himself to that enterprise which directed the main current of his thoughts during the remainder of his life. . . . For it inaugurated the philosophy that was to remain dominant in Britain for more than a century after his death, and which, through further developments and by reaction against it, has so affected the thought of the world ever since that the last two centuries might be termed the Lockian epoch in the intellectual history of Europe." The result of this meeting was the "Essay concerning Human Understanding," which, however, did not see the light till nearly twenty years had elapsed. It is strange that the author, when he commenced his celebrated work, fancied that "all he should have to say on the matter would be contained in one sheet of paper."

This is not the place to analyse or criticize the psychology of Locke. As might be expected, the word "idea" occurs in his essay more frequently than any other. "The new way of *ideas* and the old way of *speaking intelligibly* was always and ever will be the same" (p. 111). As everyone knows, Locke strove to demonstrate that the mind is in the first instance a *tabula rasa*. Professor Fraser thus remarks on Locke's opposition to innateness: "The drift of this famous argument has been overlooked by critics. It has been read as if it were an abstract discussion as to universality and necessity in knowledge, like that now at issue between empiricism and intellectualism. In arguing against innateness of principles and ideas he explains that he does not mean to deny that some truths come to be seen by human understanding as demonstrably necessary, and others as self-evidently true. On the contrary, he reports as a fact found by reflection, that in some cases the intellect becomes able to perceive a truth as the eye doth light, only by being directed to it by bare intuition, which kind of knowledge is the clearest and most certain that human frailty is capable of" (p. 115).

The personal references to the philosopher are of great interest. When 57 he had written his work on Toleration, and his Treatises on Government, in addition to his Essay on Human Understanding. The home of his old age was in Essex, at Oats, the seat of Sir Francis Masham, M.P. It was just 200 years ago that this retired life commenced. The place lies between Ongar and Harlow, not far from



Stamford Rivers, a locality recalling the name of a remarkable man of the last generation—Isaac Taylor—the author of “The Natural History of Enthusiasm,” etc. We are told that he was often seen in the Parish Church of High Laver, and that riding was his favourite exercise. “His spare, diminutive figure must have been familiar to the cottagers who were used to see Dr. Locke, the studious gentleman who lived with Sir Francis, pass on horseback on the rough roads towards Harlow, or Ongar, or Epping. . . . Sometimes the afternoon exercise was in the old-fashioned garden at the manor house, where, on warm summer days of the closing years of that far-off seventeenth century, he enjoyed the shade of the yew trees in company with Esther Masham or her mother, or basked in the sun on the sheltered walks. This routine was relieved by visits to town, or by occasional visits at Oats of illustrious friends—Isaac Newton, from Cambridge, or the Lord Shaftesbury of the ‘Characteristics,’ who, in former days, was Locke’s pupil,” etc., etc.

Locke’s declining days were soothed by the kind attention of the family in which he lived. He died in 1704, Oct. 28th, “in perfect charity with all men, and in sincere communion with the whole Church of Christ, by whatever names his followers pleased to call themselves.” He was buried “on the sunny side in the Parish Church of High Laver, where, almost two centuries ago, that serene and pensive face, pale and tinged with sadness, which Kneller has made familiar to us all, was often seen.” It is said that Sir Isaac Newton was among the first to visit his tomb.

To the book itself, however, admirably edited as it is by Dr. Fraser, we must refer the reader.

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*Sanity and Insanity.* By Dr. MERCIER. The Contemporary Science Series. Walter Scott, London, 1890.

This volume is one of the series edited by Havelock Ellis, containing “Physiognomy and Expression,” by Mantegazza, and Moll on “Hypnotism,” among other valuable scientific or semi-scientific contributions.

We say scientific or semi-scientific, because though the subjects are in a way specially scientific, yet the treatment is such as to make them acceptable to the ordinarily educated reading public.

From time to time popular books on insanity appear, and

these are eagerly sought after by the public. Nearly everyone has read Maudsley's "Responsibility," and we fancy a very large number will read Mercier's book.

Being only partially addressed to the medical profession, it will not be necessary to give an exhaustive review of the book and of its scope here.

It is written with great and loving care, and is full of poetry and metaphor. It seems to us that the writer on insanity—for popular taste—always tends to poetry. In former days quotations from Shakespeare were necessary; now these are less common, but the poetical imagination is allowed free play.

Doubtless the poet and the scientific man have more in common than they themselves are willing to admit, the former seeing at a glance likeness in diversity, while the latter is toilsomely bringing the unlike together by slow steps. We therefore accept with gratitude the many happy metaphors suggested by Dr. Mercier.

It is well to have a devout follower of Hughlings Jackson and Herbert Spencer, or perhaps one ought rather to have said a follower of Darwin and of Evolution, giving his views on mental order and disorder.

We ourselves are, perhaps, not quite such believers in the definite and the absolute as he is. We are still inclined to believe in the unknowable. Dr. Mercier has a happy assurance in his style which for the time, at all events, carries you away, and makes you believe that his interpretations are the only ones. His description of the streams of nervous force arising from within the organism, and the streams arising from without, adjusting and re-adjusting themselves according to various conditions, is very satisfying and reasonable. He certainly is never at a loss for an explanation.

The book is chiefly an introduction to nervous physiological action, and to its perversions.

The bulk of the book consists of a careful examination into the Causation of Insanity.

Instead of predisposing and exciting causes, we have brought before us as the foundations of insanity, Heredity and Stress. These subjects are clearly and, in many places, brilliantly discussed.

Later, there is a brief consideration of the forms of mental disorder. This part of the work is not intended to take the place of a clinical text-book, and is more suggestive than exhaustive. We recommend it to our readers as being full

of fresh and poetical thought. We would only observe before leaving the book that it is a pity that in one for general reading, sexual matters are so freely discussed.

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*Les Epilepsies et les Epileptiques.* Par Ch. FÉRÉ, Médecin du Bicêtre. Félix Alcan, Paris, 1890.

This is an exhaustive treatise, to which it is not possible for us to do justice; it occupies some 600 pages, and is illustrated by 12 plates, besides numerous engravings, illustrating for the most part muscle curves.

In a preamble M. Féré speaks of idiopathic epilepsy as a vanishing quantity; symptomatic epilepsy growing *pari passu*. Four principal groups of symptoms compose the epileptic syndrome: 1, motor symptoms; 2, sensory symptoms; 3, visceral symptoms; 4, psychic symptoms. Rarely do these groups occur singly without any admixture of symptoms from one of the other groups; when, however, they do so occur their nature may be masked, and it is only by studying their mode of origin and the occurrence either in the individual or in the family of affections allied to epilepsy that the true nature of the group of symptoms in question is revealed.

Under the heading "partial epilepsy" we find described the affection we are more familiar with, in this country, as Jacksonian epilepsy. M. Féré, however, does not omit to give due honour to Hughlings Jackson. Partial epilepsy is also made to apply to attacks of sensory disturbance, *e.g.*, various forms of migraine, and in particular to ophthalmic migraine. This affection in its isolation may constitute a veritable epileptic attack, showing, as it does, a stage of excitement by the presence of scintillating scotoma, to be followed by a stage of exhaustion with hemiopia, this itself being sometimes followed by somnolence.

A chapter on the various forms of aura which may precede an ordinary epileptic attack comes next. Here we find mentioned Hughlings Jackson's intellectual aura, which consists of a reminiscence of past events. In a later chapter the relation between epilepsy and certain visceral affections is considered, *e.g.*, the relation of certain cases of angina pectoris and of asthma to epilepsy, and likewise of certain cases of laryngismus.

Psychical paroxysms—sudden moral impulsive seizures—

are dealt with as the psychical equivalents of motor convulsions; also the sudden mental confusions, amnesias or blottings out of the senses.

M. Féré devotes much attention to the phenomena of exhaustion which follow the paroxysmal seizures of epilepsy. Diagnosis, prognosis, treatment, and the medico-legal aspects of epilepsy complete a work which we have not been able even to trace in outline, but which deserves careful study. The plates are excellent.

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*Annual of the Universal Medical Sciences.* Edited by CHARLES E. SAJOURS, M.D. 1890; F. A. Davis, Philadelphia, New York, and London.

The section devoted to psychological medicines is again written by Dr. Brush, of the Pennsylvania Hospital for the Insane, Philadelphia. Once more we have nothing but praise for the manner in which the contribution is prepared by him. To the editor, Dr. Sajours, we offer our congratulations for the continued able editing of this laborious annual.

The action of the London County Council is mentioned and commented upon. In connection with this subject the address to the American Association by the President, Dr. Chapin, is spoken of as touching upon the discussion respecting the separate care of acute and chronic cases, a subject so freely discussed in past years by American alienists. Dr. Chapin, above all others, has a right to deliver an opinion on the question by the work he did at the Willard Asylum. "One of the most important topics in this address has reference to distinct wards, or rather a distinct hospital structure, in connection with the institutions already in existence, and Chapin calls attention to the fact that in his annual reports of 1887 and 1888 he advocated the construction of a hospital building, limited in extent to the requirements for acute cases and those needing, for any reason, special observation distinct from the other hospital buildings." The whole address deserves careful attention, and is replete with suggestions in the line of improvement upon present methods of asylum care, and the tenor of it all may be expressed in this quotation:—"The advance would be in the direct line of recent tendencies—the individualization of classes—which principle should be further extended so as to include persons."

Under hypnotics Dr. Brush observes that sulphonal takes



the lead. He refers to the employal by Jastrowitz of the combination of chloral and morphia, and he observes upon this that "with all due deference to his authority, and that of other writers who have suggested the same combination, I cannot forbear calling attention to the danger of employing such a combination. After an extended experience in the use of chloral, the only cases in which fatal or even alarming results have followed have been cases in which the combination of these two drugs have been employed, and I have for years made it a rule not to permit their use either in combination or the administration of the one to a patient to whom the other has been given within at least four hours."

From Wetherill he quotes the statement "that from extended experiments he finds, that of hyoscyamine, hyoscyne, paraldehyde, urethane, the most certain in its action is sulphonal, while the least dependable is urethane." Obersteiner is greatly in favour of sulphonal, of which he does not think it necessary to give more than 30 grains, while less than 15 is generally sufficient. If there is pain as well as insomnia, he combines it with morphia. On the other hand, Marandon de Montyel is of opinion that 46 to 56 grains should be administered in order to produce the best effect. Garnier regards sulphonal as "a hypnotic of most remarkable value in cases of insanity. . . . The phenomena attending its use are few and of little consequence." It must not be forgotten, however, that it occasionally produces vomiting and diarrhoea.

There is so much more concentrated information in this section that it is tempting to transfer much more than we have done; but our space forbids, and we must content ourselves with referring the reader to this work, which ought to be within reach of every physician. It would be a disgrace to the medical profession if Dr. Sajous's most useful work were to fail to receive the support which it so thoroughly deserves.

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*Psychopathia Sexualis.* By Dr. R. von. KRAFFT-EBING. 5th edition. Ferdinand Enke, Stuttgart, 1890.

The author styles his book a clinical-forensic study, but from the scope and detail of the work a more ambitious description would not have been inappropriate.

The repute of the author is well sustained by the extent and copiousness of the references and quotations, as well as

by the systematic sub-division and classification of the various abnormal manifestations. Indeed, the author lays himself open to the criticism that he unduly exalts mere symptoms or phases of sexual irregularities into groups and classes.

The two first divisions on the psychological and physiological aspects of sexuality afford little ground for comment.

Parts four and five treat of the relation of these disorders to insanity and crime, systematically but not exhaustively.

Much of the book is occupied by reports of cases, the details of which seem unnecessary in a scientific aspect, and are to be deprecated in view of the probability of the book falling into the hands of lay readers. That this happens is shown by the fact that several of the cases are stated to have come to the doctor from reading his book, and is rendered probable, from the rapidity with which this has reached the fifth edition.

The greater part of the third division is devoted to "Urnige," individuals physically normal, whose sexual inclinations are to members of their own sex.

One physician is said to have met with 600 of these "Urnige"; what proportion of these were congenital is not stated. Assuming that the congenital cases constituted only a small proportion, yet even this would suggest that these sexual psychopathic monsters were much more numerous in the Austrian population than in other countries; this is peculiar, the occurrence of monstrosities not usually favouring special localities. Most of the cases recorded as dependent on innuity might as well be accounted for by the earliest associations of the abnormal sexual excitations with individuals of the same sex, and some of the mental manifestations on which the author relies, if submitted to strict psychological analysis, would be found not to support his contention. That these "Urnige" are to be pitied, as the author insists, is true, but that they are to be held irresponsible for their acts is not so easily conceded.

The results of treatment are also somewhat contradictory of the theory of innuity; these are so astonishing as to provoke the paraphrase, *magna est — no, magnus est hypnotismus*. Cases of both acquired and congenital sexual perversion are recorded in which after a few hypnotic *séances* and suggestions extending from a few weeks to three months, not only were normal sexual inclinations re-established, but normal vigour. The patients, after short periods, marry, and it is to be presumed "live happily ever afterwards."

On the whole we are driven to the conclusion that at the present day the medical profession is in danger of pandering to the morbid tastes of men, and women also, by the minute details and hair-splitting dissection of loathsome mental states and acts, a record of which increases the evil it is intended to lessen. Walt Whitman has done his best to defile the pure streams of poesy by what is euphemistically called Realism, but has no justification in reason. Medical writers stand on very different ground, and are justified in writing many things which are realistic, but this does not grant a licence to supply an unlimited quantity of coprophagic literature.

H. R.

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*Der Hypnotismus: Vorlesungen gehalten an der K. Friedrich-Wilhelm's-Universität zu Berlin.* Von W. PREYER. Vienna and Leipzig, 1890.

Prof. Preyer's treatise on hypnotism is a reprint with some additions of a series of lectures on the physiology of hypnotism delivered at Berlin in 1889-90. They aroused much interest at the time, and attracted considerable attention in and out of physiological circles, and we are very glad to see their publication in a more permanent form, as they present, besides a short but comprehensive history of hypnotism, a very complete exposition of the present state of knowledge and opinion on the physiology of this state from a physiologist of high standing, well known in other branches of this subject. Prof. Preyer begins by urging on physiologists especially the necessity of a study of hypnotism, since even should it prove of less therapeutic value than is honestly believed at present in some quarters, he considers it to offer undoubtedly a very valuable means of gaining knowledge which we could not otherwise gain of the alterations and functions of the nervous system and of the modes of interdependence of physical and psychical processes. He does not pretend to give an opinion on the large question of its usefulness in the healing of the sane or the insane, or, on the other side, of its power of throwing new light on old questions of psychology, such as the unity of personality and the limits of automatism, but more than ten years of attention have made him very sure of its importance to the full comprehension of the physiology of the nervous system.

He has made a special study of the work of Braid, whose chief book on Neurypnology, published in 1843, he translated himself into German in 1882, and we doubt if any critical review and *résumé* of Braid's life and writings, so minute or so appreciative of their physiological value, could be found in English, as is given in the chapter "Der Braidismus," with its catalogue of all his writings, small and large, and the MSS. remaining in the family. One of these, "On the Difference between Nervous and Normal Sleep," written in 1845, which has never before been published, Prof. Preyer has translated into German and added as an important appendix 35 closely-printed pages to his book. It is a sufficiently plain hint that some English inquirers might pay a little more attention to what they have considered too anomalous and too absurd to be worth notice. Naturally enough, Preyer does not forget to mention, with thorough appreciation, Dr. Hack Tuke's book on "The Influence of the Mind on the Body," which has furnished much food for thought since its publication in 1872, and has kept alive the interest in not a few medico-psychological questions. Some of the later work in England, dealing with the psychological questions involved in hypnotism, he treated very lightly in the *Deutsche Rundschau* of Jan., 1886, with insufficient knowledge of complicated detail, and after receiving a careful answer in German from an English critic he has not cared to revert to this part of the subject. After a careful description, with illustrations, of Czermak's experiments on animals, he draws the conclusion that the cataplectic and hypnotic states in both men and animals are distinct from each other, the cataplexy being, in fact, induced only by sudden and violent stimulus, *e.g.*, by a sudden blaze of light or sudden stroke on a gong, in some of Charcot's cases, and not having the most characteristic of all diagnostic points in hypnotism, *viz.*, suggestibility. He admits, however, that such a state of cataplexy may pass gradually into a true hypnotism.

In treating of the symptoms of hypnotism in general, he explains that their immense variety renders it impossible to give an exact survey of them. No two hypnoses run exactly the same course; they vary with the experiments and the subject, and with the same experiments and subject at different times, in different moods, and state of health. None the less, there are many physical symptoms, of which catalepsy is one of the most prominent. It may last as long



as 17 hours (Charles Richet) ; it is not a matter that can be simulated even to an observer of moderate common sense. If the arm of a cataleptic is stretched out at right angles to the shoulder it will stay there for half-an-hour at least, and then sink slowly. A well-trained imitator may keep his arm out for perhaps a quarter of an hour, but before it begins to sink there will be obvious to even the *tactus non eruditus* the tremor of strain ; and the sinking, if not sudden, will at least be jerky.

Of the theoretical explanation of hypnotism Preyer speaks with that caution which shows wide experience and good judgment. It is not yet, he says, possible, for we do not know enough of the phenomena. That is a good contrast to the conclusion of many observers, who have felt confident after six months' experience. The evidence given by the ophthalmoscope on the cerebral circulation is purely neutral. It shows no change in the blood-vessels of the retina (Kaane). Still, he is inclined to express the hypothesis which seems to him the least improbable. He would presuppose, for all who are hypnotizable, a weakened nutrition of some part or parts of the cerebral cortex from fatigue or accumulation of their waste products, and would regard hypnotism along with hysteria, as included in the large class of cortical neuroses, inasmuch as both are disturbances either by increase or inhibition of the functions of the grey matter. By no means all hysterical subjects can be hypnotized, as he seems to think would be natural ; but this may be explained by the incapacity of many of them to attend sufficiently carefully to any process of hypnotization that may be used. In many points he takes up a position midway between that of the schools of Charcot and of Nancy, recognizing the immense scope and importance of suggestion, but holding the view that the whole series of phenomena are not to be explained by it. Prof. Preyer did not attend the *Congrès de Psychologie Physiologique* at Paris, in 1889, where many of the points to which he has given close attention were carefully discussed by his brother physiologists. It would be a compliment gratefully appreciated by the countrymen of his hero, Braid, if he found time to attend the Congress of Experimental Psychology, which is to be held in England in 1892.

A. T. M.

*Erster Nachtrag zur Bibliographie des Modernen Hypnotismus.*  
VON MAX DESSOIR. Berlin, 1890, pp. 44.

This pamphlet is an excellent specimen of the German determination to arrive at the truth and the whole truth—at least so far as it can be learnt from books. It is the first supplement to a “Bibliography of Modern Hypnotism” published two years previously (1888), a very accurate and comprehensive catalogue of the very widely scattered books, pamphlets, and articles on a very difficult subject which especially needs such a help to its study, for the information on which the ultimate judgments must be based is in part imperfect as yet, and singularly conflicting in some particulars, owing, in a large part, to want of intercommunication between the observers. The canons of observation and experiment are far from being universally accepted; the matter is sometimes treated as a part of physiology and sometimes as a curious corner of psychology. The text books, which are all of foreign origin, are almost all based on short experience; the opinions on this side and that of any question in debate are often expressed with a confidence which would probably be very much qualified if there were more known of other people’s results. The first part was dated April, 1888, and included 812 entries from the writings of 481 authors comprising many books and pamphlets, and also some articles from 207 periodicals published all over the world from Naples to Norway, from Athens to Japan. And to these in the first supplement, which is only two years later in date, it has been found necessary to add 382 more books and articles, to include 186 new authors (making in all a total of 667 men, mostly of the medical profession, writing seriously upon it), and to give references to 47 periodicals besides those that had been mentioned before.

The mass of references in this first supplement is to the publications of the years 1888 and 1889, which, in all, amount to 213 and 174 respectively; and these dry facts and patient records offer a substantial and solid basis for the statement often made and sometimes contradicted that the European, and to a less extent the English world, both scientific and medical, is beginning to take some serious interest in hypnotism and the allied phenomena. Of all the entries, both in the original list and in this supplement, viz., 1,194, rather more than half are in the French language (612), a

small proportion of which are written in Belgium, Switzerland, Russia, etc.; in German, 172; in English, 148 (of which 57 are American); in Italian, 120. The book is singularly accurate and painstaking, there is hardly a misprint to be found in the thirteen languages in which its references are made. Still it would be almost incredible if in such a task there were not one or two trifles more to add, such as an article by Senator (1880), by Bengier (1880), Kaane (1885), Gamgee (1878), and Gasquet (1887). All the works of Braid (1843-50), and all but one of Esdaile (1843-56) have apparently been deliberately omitted along with Elliotson's as belonging to a hypnotism that was not modern enough; but as the case of amputation of the leg under hypnotism by Topham and Ward, which dates from 1842, is quoted, we should have thought it wiser to have inserted the remarkable publications of some of the best known pioneers along with these works of 667 of their followers.

A. T. MYERS.

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*Flushing and Morbid Blushing.* By HARRY CAMPBELL, M.D.  
Published by H. K. Lewis, London, 1890, p. 270.

This monograph has the justification that no other has appeared on this subject since that of Burgess in 1824.

The author lays stress on the assertion that the dermic papillæ, sebaceous glands, sweat glands, and hair follicles have each a distinct vaso-motor system capable of being "independently affected." He also points out the close relation of the "flush storm" to the epileptic and hysteric aura.

The morbid phenomena of flushing and blushing the author very correctly regards as merely symptoms of general nervous defect, and bases his treatment on this.

His records of these abnormal manifestations are very numerous, bear evidence of very careful observation, and are very systematically arranged.

The work is characterized by its thoughtfulness, suggestiveness, and evidence of much acquaintance with medical literature. It is a valuable addition to symptomatic medicine.

*Klinische und Anatomische Beiträge zur Pathologie des Gehirns.*

Von Dr. SALOMON EBERHARD HENSCHEN, Prof. der Klin. Med., Director der Med. Klin., An der Universität-Upsala. Ersten Teil, mit 36 Tafeln und 3 Karten. 1890.

This book, the first volume of which has been published, is a thick quarto of 215 pages, and is a work of most valuable matter—one which must have cost the author a great expenditure of time and labour. The work is most useful, not only for the very full way in which the clinical history and the condition of the patient is described, but also for the minuteness in which the post-mortem conditions, both macroscopical and microscopical, are recorded, and not least for the magnificent way in which these conditions are illustrated by a series of illustrations. This last feature in the work will be better appreciated when it is said that there are no less than 36 full-sized lithographic plates, and two pages giving the perimeter charts of cases of hemianopsia, and one page in which are reproduced the fac-simile attempts in writing of a case of aphasia.

The present volume has been devoted to cases in which some part of the visual tract in the brain was affected, and the intimate relations between the clinical condition of the patient, and the anatomical changes causing that condition, are maintained throughout, as in every case, except six, here described death ensued, and the post-mortem changes could be accurately ascertained.

In a notice of an extensive work like this it would be quite impossible to give even a brief account of each case, of which there are 36 described. It will, therefore, be advisable to give a list of the different subjects dealt with, and then to take one or two cases and detail more fully the methods employed.

The first subject is on the secondary changes of the optic tract in a case of bilateral atrophy of both eyeballs.

The first patient was a case of leprosy, which had destroyed both eyeballs, and had ulcerated through the back of the orbits into the optic chiasma. The case is described as one which exhibits the changes produced in the visual apparatus by long-standing atrophy of the eye-balls. The man was blind for 42 years, and on examining the brain, changes were found in the corpus geniculatum externum, the pulvinar of the optic thalamus, the anterior corpora quadrigemina, the optic radiations of Gratiolet, and in the occipital lobe.



The clinical history and condition of the patient is first given, and then the various changes found in the brain are described, both macroscopically and microscopically.

The whole of the occipital lobes were atrophied, and the convolutions were smaller than in other parts of the brain, and this is very well shown by two full-sized lithographic drawings of the median and lateral aspect of one hemisphere. The median surface of the occipital lobe was sunk to a level below the adjacent parietal. The part of the occipital most affected on the surface was the cuneus and the posterior part of the lobulus lingualis, but the greatest atrophy was found in the convolutions bounding the calcarine fissure, where it sinks into the occipital lobe, and especially in the grey matter forming the bottom of the fissure. Here on microscopical examination the cortex was 2-4 mm. thinner, containing less neuroglia; the nerve cells were atrophied close together, and with distended pericellular spaces, and there was a complete absence of pyramidal cells; the fourth and fifth layers of the cortex were most affected. This atrophied part reaches on the surface backwards along the calcarine fissure to the tip of the occipital lobe, and forwards to the internal parieto-occipital fissure, upwards to about the middle of the cuneus, and downwards a few millimetres on to the lobus lingualis. The central white matter of the occipital region was not well stained by hæmatoxylin, and the optic radiations of Gratiolet were atrophied, but the part of this tract most affected was the median portion, *i.e.*, that which ends in the cortex at the bottom of the calcarine fissure. The author, therefore, thinks it highly probable that this cortex is the most important part of the visual centre, and that the rest of the occipital cortex is the seat of visual thought and registration. Contrary to what would be expected from the results of experimental research on animals, the author did not find that the gyrus angularis was appreciably diminished in size, though a few of its cells were atrophied, but generally they were well formed. The corpora quadrigemina anteriora were rather flattened, and the corpus geniculatum externum of either side was wasted, while the corp. gen. internum was normal.

The appearance and position of the atrophied optic radiations is well shown in the lithographic drawings of seven frontal sections of the occipital lobe, taken at distances of from 1 cm. to 7 cm. from the posterior end. The size of the atrophied pulvinar and corpus geniculatum is shown in a

drawing of them taken from behind and from below. The microscopical appearances of these ganglia are fully described, both as regards the cells and the different fibre tracts, and the changes are beautifully illustrated by six drawings of sections obtained by Weigert's hæmatoxylin process, and magnified two to four times. It would take up too much space to enumerate the changes there found, but it will be sufficient to state that they are most minutely described.

The condition of the optic chiasma with Von Gudden's and Meynert's commissures are described and illustrated by five drawings.

It will thus be seen from the above case, which is taken as an example, that both the clinical condition and the pathological changes are described with great minuteness of detail, and the latter are most fully illustrated by drawings.

The second subject, "On the optic tract in a person with one eye," is represented by seven different cases in which this condition existed. The first case is illustrated by a drawing of the optic chiasma, tract, and basal ganglia, and by ten microscopical drawings of frontal sections of these parts, extending from the optic nerves successively backwards to the corpus geniculatum externum, and stained by Weigert's hæmatoxylin. This case had the right eye atrophied, and in the right half of the tract the atrophied direct fibres were at the upper surface, while in the left tract the atrophied crossed fibres were near the inferior surface; in the optic tract, near to the corpus geniculatum externum, the atrophied direct fibres were in the median part of the right tract, whilst on the left side the atrophied crossed fibres were in the outer part.

The above cases are given to illustrate the minute manner in which the cases are described.

Under the other subjects dealt with in this volume are: "The changes in the optic tract from a lesion of the corpus geniculatum externum," "Hemianopsia after (i.) gummatous basal meningitis; (ii.) after hæmorrhage into the optic thalamus; (iii.) from softening in the optic radiations; (iv.) cortical hemianopsia, contributions to the colour fields in hemianopsia, and a clinical study of cases of hemianopsia. The two latter were not verified by autopsies. On the other hand, there are cases showing the changes after tumours of the optic chiasma; visual disturbances from changes in the optic radiations and the optic tracts after lesion in the same part; and, lastly, tumours in the optic radiations, or cortical

changes of the occipital lobes, without hemianopsia. All the above subjects, with the exception of two enumerated, are illustrated by numerous drawings, as in the two cases already described.

It will thus be seen that Dr. Henschen has produced a most valuable work on the relations of the optic tracts and centres to the various changes in vision, and has done this by a most laborious and minute examination of the conditions of the brain which has never been surpassed, and in addition to the naked eye appearances, the microscopical examination has been most complete, as is testified by the fact that 10,000 sections have been made for the work. We have only one suggestion to make, and that is that in the second volume it would assist the reader if the table of abbreviations be put at the beginning of the plates in place of at the beginning of the work. We can most heartily recommend this book as one of the best works yet produced on the subject.

C. E. BEEVOR.

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*Lunacy Act of 1890.* By CHARLES STREET, M.R.C.S., Superintendent of Haydock Lodge, Newton-le-Willows. Neill and Co., Edinburgh. 1890.

This is a paper which was read before the Liverpool Medical Institute.

Mr. Street has collected into this essay the chief details of the differences in the working of the new Act and the old, and in a short space gives all that is necessary for the medical man who has to sign a certificate for the reception of a patient into a private asylum. The forms for the friends, the magistrate, and for the medical men are added, as well as certain other forms which, according to the new law, the patient must see as to his rights and privileges.

We may here say that Mr. Street has also had published very artistic mountings with the forms, which have to be posted in every licensed house, informing the patients of their rights.

These forms, which were so strongly objected to, and which in any case must be objectionable, are by means of these mountings rendered ornamental and inconspicuous as far as they can be by artistic surroundings. We believe

they can be obtained on application to Mr. Street for a very small sum.

The two things are both useful, the essay being in the right spirit and the form being in the right taste.

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*Sutherland's Directory of Justices in Lunacy.* 1890 and 1891.  
Bale and Sons, Great Tichfield Street, W.

Dr. Henry Sutherland took a great deal of pains to prepare a very useful handbook for the use of asylum officers and other medical men, and it had no sooner established its place and its use than a fresh crop of judicial authorities were appointed, and so the book is, we regret to say, rendered all but useless, and certainly misleading. We feel that for an author to prepare a directory for each year is too much to expect, and yet unless this is done it will be useless. The difficulties are very great, and the book under notice was hardly out of the publisher's hands, than by death and removal it had become defective. All seems to point to the necessity of making all magistrates to be judicial authorities; then a complete list of Justices would be of great service, and the changes from year to year would be few and unimportant.

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*Fry's Lunacy Laws,* CHAMBERS. Knight and Co., 1890.

It is hardly necessary for us to do more than state that the fresh edition of this standard book has appeared with commendable rapidity after the passing of the Consolidated Lunacy Act. It is full, and very clear; it gives the Act and the requirement under it, and gives all the leading cases which refer to clauses under the existing Act, so that for reference everything is handy. It gives not only the law, but the regulations or rules of the Commissioners in Lunacy. The editor modestly says as Fry's book is so well known and valued, he has followed its plan with little change. There are three parts, or books as they are called, the first being the epitome of all the regulations and laws of private, pauper, and criminal lunatics. Book II. contains the statutes, and Book III. the official documents, with the rules made by Lord Chancellors and by the Commissioners. The book closes with the circular letter of the Local Government Board issued in 1890. The volume is more handy than its predecessors in form and size.



## PART III.—PSYCHOLOGICAL RETROSPECT.

1. *English Restrospect.**Asylum Reports for 1889.**(Continued from p. 428, Vol. xxvi.)*

*Argyll and Bute* (1889-90).—As the result of the discharge of all out-county private and pauper patients, it has been necessary to increase the weekly charge from 8s. to 9s.

Only one case of general paralysis was admitted, and not one death was due to this disease.

Measles, which had for some time previously been epidemic in the neighbourhood, appeared in the asylum during last April. All the cases, except one, appeared in the male department. Seven patients and five attendants were affected, of whom one patient and one attendant died. It was found necessary to convert the tailor's shop into a temporary hospital in order to secure proper isolation of the sick.

The alterations on the female side of the West House for the purpose of providing increased hospital accommodation have been finished. The new section provides for 32 patients, and these are all either suicidal, epileptic, or recent admissions. It has now become possible for the first time to have the whole of the female epileptics under constant supervision at night. The old infirmary ward is reserved exclusively for bedridden and feeble cases. It is hoped that similar arrangements may be carried out on the male side.

The water supply is very deficient.

*Armagh*.—The dormitories in the older portion of the building are to be fitted with a system of circulating hot-water pipes.

In the terrible railway accident three valued attendants were killed and the matron seriously injured. Two cases of insanity were indirectly due to the same cause.

A mild form of influenza occurred, attacking a few patients and a larger number of the staff.

*Berkshire*.—Dr. Douty reports that three times during the year typhoid fever appeared among the female population of the asylum, viz., in March, May, and August. The persons affected numbered ten in all—eight patients, a hospital nurse, and a junior laundry-maid. These cases did not originate in any one ward, but, on the contrary, there was no ward on the female side which did not supply one or more cases. There were two deaths, the patients being both chronic lunatics and advanced in years.

We refer to Dr. Douty's report for particulars of what was done to improve the water supply, to rectify the drainage, &c.

Concerning the new Lunacy Act, he says:—

This Act imposes upon the superintendents of asylums a large amount of daily extra work in the shape of certificates and returns. One would think that the statutory duties of superintendents were already too numerous;

but the new Act makes them threefold what they are. Of the utility or otherwise of the Act, as far as it relates to private asylums, it is not for me to speak; but I confess that I entirely fail to see the slightest shadow of benefit to the patients, to the Government, to myself, or to the public which can possibly be derived from this mass of certificates and new duties with the corresponding penalties for omission imposed by this new Act upon us. Those who have framed the clauses of the Act relating to public asylums must, one thinks, have failed to recollect the fact that the superintendents of these institutions have in mind, as their chief aim, the cure and discharge of patients; and they must also have lost sight of the fact that all the hours to be spent in the future upon the vexatious duties newly imposed by this Act must be subtracted from those at present forthcoming for medical and surgical work.

Alas! Dr. Douty does not exaggerate the amount of work thrown upon the medical officers by the new Act.

*Cambridge.*—A culpable and stupid mistake has been committed in preparing the new buildings. The wings were expected to accommodate 40 persons each; but one can receive only 28 and the other 32! The Commissioners strongly and rightly condemned the condition of these additions when opened for the reception of patients.

*Crichton Royal Institution.*—As this asylum increases in years it appears to increase in the success of its work in all departments. The energy and enlightenment of its management are beyond a doubt, and the amount of benevolence extended to the poorer middle classes is worthy of the highest praise.

To Dr. Rutherford's report we refer those interested in the foundation and development of the institution; and we content ourselves by making the following extract:—

Such results show that insanity is a most curable disease (?); as curable as any other disease affecting a vital organ (?); but, like other grave diseases, it requires prompt and early treatment; indeed, it may be accepted as an axiom that its curability depends upon the period at which treatment is commenced. The first and most essential step in the treatment of insanity is removal from home and from the presence of friends whose injudicious kindness and attention often produce or keep up an excitement which, under other surroundings, does not occur, or if it does, speedily subsides. It constantly happens that patients reported as violent and unmanageable at home, or under the private care to which they had been sent in the anxious endeavour to dispense with asylum treatment, when brought to the institution become at once tranquil under the influence of its quiet routine and the care of an experienced staff. I consider that the early treatment of insanity can nowhere be carried out so well or so successfully as in a well-ordered asylum, and that everything which delays this, such as the placing of the patient under private care, or sending him on a voyage, or to travel, at the outset of mental disease directly diminishes his chances of recovery. The private care or the voyage might often be resorted to with advantage when the patient is convalescent, but not when the disease is beginning or progressing. Patients are sometimes sent by their medical advisers into lodgings in Dumfries to be attended privately, but I do not think that, in these circumstances, they have the same chances of recovery as in the institution, and generally they end by entering it, or one of its detached residences. Partly to meet such cases where there is a disinclination to entering an asylum, the Board of Directors has recently added two additional villa residences to the institution, into which suitable cases may enter as voluntary patients and have all the

advantages of asylum nursing and treatment without coming into the main building.

We venture to suggest that it is more correct to avoid the use of the word "curability," although the case may end in "recovery." Dr. Rutherford must be much less of a logician than we suppose him to be if he really believes that he has cured the patients who have recovered in the asylum under his care. He writes so definitely of "treatment" and its remarkable success, that we would gladly insert in the Journal the record of a series of recovered cases, showing that the happy result was *propter* and not merely *post hoc*. Dr. Clifford Allbutt stated at the Psychology Section of the British Medical Association held at Birmingham that he and another Commissioner had carefully examined the recovery rate in the overcrowded county asylums, and in the smaller ones where individual treatment was more practicable, and that the percentage was no higher in the latter than the former. The disorder ran its course to recovery or otherwise under the unfavourable as it did in the more favourable circumstances. If this be so—and it is very important that the statement should be confirmed—we ought to be cautious how we confound the *vis medicatrix Naturæ* with *curing*.

*Dorset.*—A large addition has been made to the estate by the purchase of about 199 acres with farm buildings. Some 99 acres of this are already in use by the asylum; and it is considered that the buildings on it can be utilized as a hospital for infectious diseases.

As is generally known, this asylum consists of two buildings about a mile apart. It appears to have been decided that the antiquated buildings at Forstons should be abandoned, and that those at Charminster should be greatly enlarged.

Dr. MacDonald touches on a great variety of topics in his annual report. Concerning the offspring of recurrent cases, he says :—

The subject of heredity in disease has received as much attention as any problem of equal delicacy and untold importance. But has it received the attention it deserves—I might almost say calls for—in connection with the offspring of cases of recurrent insanity? What can be said for the mental stability of the child whose mother or father has had two or three attacks of mental disease? It is quite the ordinary sequence of events to chronicle an addition to the family during the period between recovery and relapse. The child born after a first attack may never suffer from any mental trouble, yet there is always present the link in the chain of heredity. But a child born of a father or mother who has suffered from two or more attacks of insanity is not likely to be possessed of as stable a modicum of "brains" as is natural or physiologically necessary to survive the struggle for existence. I fear there is little or no chance of checking these tainted additions to our population. I am prompted to make these remarks because of the large number of married women admitted during the past year who have recovered and returned to their homes.

Dr. MacDonald's remarks concerning the new Lunacy Act are not favourable. He also regrets that much additional clerical work will

devolve on him, though his time is already fully occupied, and he can ill afford to have his mind and spare hours absorbed and taken up in writing and signing innumerable reports, the use and need of which are not apparent.

*Dundee.*—Concerning one department of asylum medical work, Dr. Rorie says :—

Post-mortem examinations continue to be made in all cases where the consent of relatives can be obtained, and the great importance of such examinations was shown in several instances. During the past year 36 such examinations were carefully carried out. A full account of the morbid conditions found is entered in the Pathological Record, and a summary of the more important cases was, as usual, submitted to the meetings of the Forfarshire Medical Society. The Pathological Research Room and Museum have now been fitted up, and afford ample provision for carrying out such researches.

It may be mentioned in connection with this department that the Clinical Clerkship, recently sanctioned, has been taken advantage of by two gentlemen. This addition to the medical appointments in connection with the institution has proved beneficial and successful. It has been found to benefit the asylum from the help afforded to the medical assistant in completing and extending the Medical Records; but the principal benefit conferred is in enabling fourth-year students and recent graduates to acquire a thorough knowledge of the various forms of mental disease, and of the modes of treatment now adopted in large asylums, and which can only be satisfactorily acquired by actual residence in such institutions.

*Earlwood.*—Concerning the causes of imbecility, Dr. Robert Jones says :—

The cause or causes of imbecility remain as before—one of the unexplained mysteries of Nature. To us, as medical men, if not to the public also, it is a matter of the greatest concern, and it affords a vast field for research and theory. It has frequently been stated that the eldest child is more often imbecile than others in a family, and considering the influence of maternal impressions and the exalted emotional life of a young mother under new circumstances, such might almost have been expected. It would also be expected that boys should be affected in a larger relative proportion than girls, but neither is the case. In sixty-four cases admitted twelve were eldest children, with an equal percentage in both sexes, ten were second children, twelve were third, and ten fourths in a family, and then in a gradually diminishing proportion until a rise takes place after the eighth in large families. Careful inquiries are always made as to the nature of the birth, labour, etc.; but none of these inquiries elicit facts of causation, whereas the mental condition of the mother during pregnancy—anxiety, fright, affliction, etc.—are made to account for twenty out of sixty-four cases, or about one-third of all the admissions. Consumption in the family is not so frequent as in the statistics of the Royal Albert Asylum, Lancaster, the geographical distribution of the disease being more marked in the northern counties. Marriages of consanguinity appear to have little to do with imbecility, unless there be hereditary taint in the stock. Convulsions in infancy, as a factor, must not be overlooked.

It cannot be too plainly stated that imbecility appears not to be due to any one single or definite cause, but to a multiplicity of causes acting together. Where hereditary taint exists the unfavourable conditions may be brought about by anything which may interfere with the due growth and development of the offspring, having its existence either before or after birth.



*Edinburgh Royal Asylum.*—Dr. Clouston devotes a large portion of his report to the consideration of alcoholic insanity. To his report we must refer those who desire to read his remarks in full, but we reproduce the following rather lengthy extracts, as they treat of subjects of the greatest importance :—

The chief points in regard to which the treatment of insanity and the administration of the Lunacy Laws have special concern are :—

1. Will habitual drunkenness be considered and treated legislatively as if it were a form of insanity ?

2. Will the measures that attempt to control habitual drunkenness be available for the control of those bouts of drinking that so often cause actual insanity in predisposed subjects when such bouts can be clearly shown to have caused attacks of mental disease ?

3. Will our present asylums be used in any way for the custody and cure of habitual drunkards ? And will the machinery provided by the Lunacy Acts be used in any way for this purpose ?

That such legislation might affect this and every other asylum in the kingdom, if it mixed up ordinary mental disease, as we now understand it, and drunkenness, is very evident. No doubt there is a real connection between the two conditions, but there are also differences that seem to me essential, and that should be well considered before legislation takes shape.

The chief points of connection between excessive drinking and insanity are the following :—

1. Alcoholic excess is the most frequent single exciting cause of mental disease, and it acts also as a predisposing cause in very many cases. During the past fifteen years we have had 837 admissions in whom drink has been put down as the cause, or 16·4 per cent. of all our admissions during that time. This may be taken as about the general experience of the country. Let us suppose that excessive drinking could have been put a stop to, would all those 837 persons have remained sane ? It is certain they would not, but a large proportion would have done so. It must be clearly kept in view that such mental disease, so called, is not "dipsomania," and may have little in common with it, and the proper treatment of such insanity is already provided for under the present laws.

2. Excessive drinking and mental disease are closely connected hereditarily in many cases. The children of drunkards sometimes become insane, and the children of insane people still more frequently become drunkards.

3. The same causes often tend to produce both, and in the same kind of people, viz., those of a too nervous constitution, whose power of control is innately below the average, or whose cravings are above it, of which causes the following may be taken as examples—viz., bad conditions of life, bad air, living too monotonous lives, over-work, over-anxiety, ill-health, injuries to the head, certain diseases of the brain, sunstroke, and, in some cases, the physiological crises and functions of life.

4. There are some cases of drinking that present some of the very same symptoms as many cases of mental disease, viz., periodicity, impulsiveness, suicidal and homicidal feelings, loss of the natural feelings of affection towards wife and children and relatives, incapacity to do continuous work, mental or bodily, etc.

5. Many cases of actual insanity are accompanied by the drink-craving. For such no new legislation is needed, however. The greater includes the less. In them the insanity is the disease, the excessive drinking is merely one of the symptoms.

6. Above all other resemblances we have this one, viz., that lack of the controlling power is the symptom most common to mental disease and drunkenness,

and constitutes, along with a dominating morbid craving, the disease itself in "dipsomania."

7. Mental disease always results from a pathological condition of the brain, and is a true disease, therefore precisely of the same essential nature as many other diseases; and I think it is proved that habitual drunkenness often also results from a pathological condition of the brain, and is therefore in those cases a true disease. It is only when it is such a true disease that it is proper to call it *dipsomania*. This word is used at present very loosely and inaccurately, and often misleads.

The differences and distinctions between ordinary mental disease and habitual drunkenness, or even true dipsomania, are then well stated, but our space does not allow of our extracting further from this excellent report.

*Glasgow, and Lanark.*—Dr. Campbell Clark considers :—

That patients may be allowed to remain too long in asylums. After a certain stage is past, prolonged residence in an asylum means, for some cases, a deepening mental degradation, and these should be tried at home or under care in private dwellings. At the worst it can be but a failure, if due care is taken in selecting cases and guardians, and they can ultimately be brought back to the asylum if necessary.

The following gives the results of Dr. Clark's treatment of puerperal insanity :—

No type of insanity is so distressing as the insanity of child-birth, and for such cases the very best hospital equipment is usually required; for they are cases as much of bodily disease as of insanity, and the death rate is relatively high. Against this must be placed the advantage that, if quickly put under special treatment, the chances of recovery are better than in the average of insane cases. Since the opening of the asylum we have admitted 52 cases of this class; of these seven have died, 40 have recovered, two are convalescent, one has improved, and two incurable cases remain. Of these seven suffered from consumption, 11 from serious blood poisoning, one requiring surgical treatment, 14 from inflammations and abscesses, four requiring surgical treatment, one from scarlet fever, one from typhoid fever, one from suicidal wound, one from heart disease, and all without exception required medical or surgical treatment of some kind or other. The record of the last two of the admissions will close in a few weeks, and we will then have for 52 cases a recovery rate of 80·7 per cent., a death rate of 13·4 per cent., and an incurable residue of 3·8 per cent.

*Gloucester.*—In concluding an unsparing criticism of the new Lunacy Act, Mr. Craddock says :—

A review of the essence and scope of the Act results in the inevitable conclusion that it has the cardinal defect of a tendency towards increased centralization. Its provisions are sanctioned by a ring fence of pains and penalties which will render more harassing and irksome than before the already sufficiently trying task imposed on all conscientious persons engaged in the care and cure of the insane; its proposed safeguards are, as has been shown in at least one important respect, visionary, and many of its enactments appear to have for their object little more than an increase of an already unconscionable amount of red tape. I look forward confidently (without being necessarily a Home Ruler) to the time when the management of county asylums and pauper lunatics will be really, instead of nominally, in the hands of the Committee of Visitors appointed by the County Council, and the functions of central boards, Government auditors, and other officials, who now merely have to do over again (at the ratepayers' expense) what has already been thoroughly done by the County Councils' own officers, will be relegated to and confined within their proper sphere.

The above paragraph must not be taken as expressing our views : it is merely given as an example of opinion on some very controversial questions.

*Govan.*—One man, who had been an inmate of the asylum for upwards of 16 years, had so far recovered as to warrant his discharge to the poor-house, where he has been regularly employed in responsible and remunerative work.

With the view of better testing the fitness of patients for discharge, either to their own homes or to be boarded in the country, Dr. Watson has made a more extended use of the power possessed by Scotch superintendents of liberating on pass for a period not exceeding 28 days. Eight men and 11 women were so dealt with. Of the former, all did well with the exception of one man. Of the 11 women, two were brought back in two and five days respectively, there having been in both cases a recurrence of excitement.

We observe that some of the statistical tables are not those recommended by the Association.

*Ipswich.*—In their report the Commissioners say :—

Some of the patients, though not technically secluded, were so in reality, as a nurse or patient was placed at the shut door to prevent egress. We mentioned our disapproval of this mode of treatment to Dr. Rowe (who, owing to the lamented death of Dr. Chevallier, has been recently appointed superintendent), and he agrees with us that it is seclusion, and if resorted to ought to be carried out thoroughly and recorded as seclusion. Our experience shows us that a patient secluded is much less liable to be irritated and excited than one who is kept in his room by manual force ; and seclusion is the only proper course to pursue.

About the truth of this expression of official opinion there can be no doubt.

*Kent. Chartham Downs.*—Of the 69 deaths no fewer than 11 are attributed to exhaustion from mania, and eight to old age.

The number of cases in which a post-mortem examination was made is not stated.

*Kent. Barming Heath.*—Dr. Davies states :—

An important change has been made in the leave granted to attendants. Several years ago you sanctioned my recommendation to grant them the whole of every tenth day as a holiday, in addition to 14 other days as annual leave ; at the time this change was made it was a vast stride in advance of what had been our custom. Lengthened experience convinced me, however, that we might with advantage go further, and I accordingly advised you to grant leave of absence to each attendant for the whole of every seventh day, in addition to the annual leave above-mentioned ; you adopted my suggestion, and the result has so far proved most satisfactory. Work in an asylum is very depressing, and the hours of labour extremely, if not indeed excessively, long.

I regret I cannot see my way to suggest any diminution in the number of hours an attendant is on duty each day ; the difficulty is one of expense only, but I feel strongly that it would be a very good thing for the patients if means could be devised by which no individual attendant remained on duty for more than eight consecutive hours.

*Lancashire. Lancaster.*—Having referred to the now notorious but exploded proposal of the London County Council as a “most



praiseworthy attempt" in the direction of adopting new and improved methods of cure, Dr. Cassidy proceeds :—

In justice to us who are engaged in asylum practice it should be remembered that we are precluded from practise outside our asylums, and therefore precluded from treating that stage of derangement of body and nerves when the mind is balanced between sanity and insanity. The early stage of insanity is almost invariably past before the patient reaches us, and more than one half of the cases admitted are incurable *ab initio*. The stages which I have alluded to when treatment would be most desirable, are now observed and treated by physicians and general practitioners, or in the out-patient department of hospitals. To the specialists go their failures. In my view an out-patient department should be attached to all public asylums, and patients should be admitted as voluntary boarders, perhaps into special departments separate from other parts of the asylums. The existing situation, however, if it cannot be remedied, is amply met by our public asylums. They have advanced by a natural process of evolution, from the Bedlams of old, and every year we are making advances and improvements to meet new wants and new views. Without for a moment supposing that we have arrived at the stage of perfection, I hold that asylum medical officers are alive to the progress of science, and quick to adopt the most advanced treatment or means of cure, and our new Committees of Visitors will, I am sure, support us in every proposal we may make with that end in view.

The great drawbacks, therefore, which affect us would equally apply to the proposed hospital in London, with its further serious disadvantages of an unfortunate situation in the midst of a great city, and of being over-doctored. I feel a compassion growing within me for the inmates of that hospital of the future; they are not only to be studied and physicked by six physicians; they are also to be demonstrated and otherwise utilized for the instruction of classes of students, and for those who require his services, the special pathologist will be in waiting!

The following remarks on phthisis are important, but it should be remembered that prevention is better than cure, and it is to be feared that there are many shortcomings in this direction :—

This disease is constantly found, more or less, among the insane; they live on a lower level of vitality, their nutrition is impaired, and their habits and mode of living conduce to respiratory and cardiac diseases. I think, moreover, that in communities living together within a narrow area for prolonged periods, disease germs, and therefore the germ diseases, have a tendency to acquire an increased infectiveness. The modern belief that phthisis is due to a tubercle bacillus is now sufficiently well established, and on this I have acted in separating consumptive patients from the others. They are now isolated in small separate infirmary wards, where the atmosphere is kept charged with vapours of oil of peppermint and eucalyptus, and their various utensils are disinfected with hydro-naphthol or other agents believed to be destructive of the tubercle bacilli. Treatment by Rosenberg's method of intralaryngeal injections of oily solution of menthol has been attempted, but in the case of the insane it is attended with great difficulties, and is practically impossible. By these and by general hygienic measures and treatment I hope to limit, if possible, the spread of this disease; though, when a virulent and wide-spread epidemic, such as that of influenza and pneumonia, through which we have lately passed, attacks us, all precautions are apt to break down, and, as a matter of fact, have here broken down. The effect of the recent outbreak was as the lighting of a fire, and those predisposed to pulmonary disease rapidly became affected, and many died of phthisis. The influenza, however, did not occur within the period embraced in this report, and I merely mention it as *à propos* to the question of phthisis.



*Lancashire. Prestwich.*—We miss Dr. Ley's report. At the time that it should have been presented he was on sick leave, suffering from the serious assault committed on him by an attendant.

*Lancashire. Rainhill.*—The following is Dr. Wigglesworth's contribution to the question of the day—the medical treatment of the insane :—

If the constant and rapid accumulation of chronic cases is to be checked at all, it can only be done by increasing the recovery rate, and the question as to whether this is feasible is one which demands the most anxious consideration. And it is the more necessary to look this matter in the face, as of late years the opinion has been gaining ground that our asylums, however admirable as institutions for the *care* of the insane, do not, perhaps, pay sufficient attention to the cure of those who are gathered within their walls. It is not indeed that this question is by any means lost sight of, but it is more than doubtful whether the progress that has of late years been made in our knowledge and treatment has been at all commensurate with that which has been recorded in other departments of medicine. Doubtless in times past, advance has been retarded by the erroneous views which prevailed as to the nature of mental disease, but the old belief in the spiritual nature of insanity is dead, and we now know that insanity is a disease of a bodily organ—the brain—and that it is of all diseases the most obscure and abstruse, simply because it is the expression of the abnormalities of that organ, which is, of all others, the most complex and the least understood. But difficult as is the problem, it cannot be supposed that it is too great for the human mind to grapple with, and the progress of medical science may be expected in time to unravel many of the mysteries which, at present, surround the disease, and to inaugurate improved and more successful methods of dealing with it. But there is no royal road to knowledge, and it is by laborious and patient research alone that it is possible to wring new secrets from nature ; and if our knowledge of insanity is to be increased and an improved treatment to follow thereupon, it can only be done by a more detailed and systematic study of individual cases than has hitherto been either customary or practicable. And it must be admitted that the present practice of building colossal asylums, and of dealing with the insane in large masses, is one but little favourable to that individual study and attention which, in insanity of all diseases, is the most needed. Our endeavours rather should be to bring our asylums—those at least which deal with the *curable* insane—more into line with general hospitals, and to officer and equip them in such a fashion as to permit of more time and study being devoted to each individual patient ; and it is by developing our asylum constitution in accordance with this idea that we may hope to supplement the means already in use for the cure of those entrusted to us, and to contribute our quota towards stemming the tide of insanity at present at the flood.

*Lancashire. Whittingham.*—Dr. Wallis also has some sensible remarks on medical work in asylums.

I take this opportunity of thanking the Committee of Visitors for their ready consent to allow me to replace the former junior medical officer by a skilled pathologist at a salary of £200 a year. The gentleman appointed to this post will devote himself solely to pathological research, and I hope much good will result from this arrangement, for under the old system, no really sustained work in this direction was possible, so many demands having been made upon the junior medical officer's time. I look upon this departure as the most important event of the year, but there are other questions equally pressing, and I would pass on to one or two of them. I am more and more convinced as time goes on that more ought to be done in the direction of individual treatment than is done at the present time. For this purpose we must have special

hospital wards for the recent cases, and more medical officers and a larger proportion of attendants. There are special wards (admission wards) no doubt in every asylum, but I fear they are not sufficient in number so as to admit of a proper classification and sub-division of the recent admissions. At any rate, in this institution I have from time to time recorded my conviction that our accommodation in this respect is absolutely insufficient. . . . Further, our medical officers have at the present time an average of six hundred patients each to look after, and in my opinion three hundred would be more than enough for the careful and thorough attention which cases of insanity assuredly need, so changeable are they from day to day. A hundred cases of recent insanity would occupy the time of a medical officer most fully, were he to study them exhaustively, and in their wards the proportion of attendants should be no less than double the present proportion. We have to refrain from employing many recent admissions when we feel that some special employment might be most advantageous, because we have not, and cannot well ask for (as a curative measure) the implements necessary for the work. Our existing modes of employment may be unsuitable, or the individual case cannot be entrusted to the tenth part of an attendant, *i.e.*, one who has to look after nine other patients. You may wish to send out another inmate for country walks, whose sense of confinement is very intolerable and injurious, and yet whose mental state is critical, so that two attendants may be required to provide against any emergency. This under existing circumstances is an impossibility, so that here is a case of insanity sent to an asylum for cure, remaining unprovided with perhaps the most important element of treatment possible. To treat all our recent admissions, or, at any rate, all those in whom any chance of recovery existed, with a free hand, and without stint, would result in a very sensible increase in the cost of maintenance all round, whilst the present tendency in asylums is in the opposite direction; more's the pity. As I have said in former years, I have a sincere respect for economy, and know it is my bounden duty to practise it as far as possible, but it is no less binding upon the consciences of all concerned in the care of the insane, to see that they shall suffer no loss or detriment by any unwholesome striving for economy, only to be maintained at the expense of efficiency.

We may be excused if we remark that there appears to be no valid excuse for not employing the extra attendants required for the adequate treatment of the cases mentioned by Dr. Wallis. As to expense, that is nothing. The weekly cost at Whittingham is only a fraction of a penny above 8s. If the patients laboured under acute bodily disease, extra attendants would be engaged readily enough; why not in mental cases?

*Lincolnshire.*—The sanitary improvement of this asylum is continued. During the progress of the work numerous serious defects in the drains, &c., were discovered.

*Leicestershire and Rutland.*—Dr. Higgins reports that in several wards the wooden window frames have been replaced by iron ones, in consequence of several escapes having occurred. We would indicate that this step is in the opposite direction of what has been done in most asylums. It is far better to trust to careful supervision than to what are really iron bars. If the staff of attendants had been increased, this retrograde step would not have been required. The Commissioners remark that the staff is not too strong—a rather gentle way of stating the fact. The danger from fire has been much increased by the alteration made in the windows.

*Leicester.*—The accommodation has been increased by building for seventy patients. Twenty-two single rooms have been provided, and a large dormitory for epileptics.

*London. County.*—It is with much satisfaction that we observe in the report of the General Asylums Committee that —

The question of the pay, hours of duty, and leave of the male and female attendants, has been considered by a special sub-committee, and their deliberations have resulted in a carefully-prepared scheme, involving material improvements in the pay and relaxation from duty of these persons, and uniformity for the future in these respects in all the asylums. The recommendations of this sub-committee have been adopted.

*London. Banstead.*—Concerning criminal lunatics, Dr. Clay Shaw reports :—

Ten criminal lunatics were admitted during the year 1889, and between January 1st and March 31st, 1890, seven more, so that in the fifteen months we have had seventeen of this class of patients. I cannot honestly say that they have given us much trouble. There are many patients in the asylum who have, at one time or another during their lives, been in prison, so that it is difficult to see why such strong objections are so often made against the reception of criminal lunatics in asylums. As a rule they are either imbeciles or general paralytics, and from my experience they are neither worse nor better than most of the others ; certainly the worst patients here are not the criminals. One noteworthy feature among these persons is that they prefer the prison ; they say that it is much easier for them when discharged to get another situation from the prison than from the lunatic asylum, hence they are extremely anxious to be sent back to prison, instead of being discharged through the workhouse.

*London. Cane Hill.*—A limited outbreak of typhoid fever occurred, Dr. Moody reports that in one instance mental recovery took place as a consequence of the disease. In one of the cases who died the patient became quite rational before the end.

*London. Claybury.*—An asylum for the accommodation of 2,000 patients is in process of erection. The estate extends to 269 acres, and cost £37,895. The contract price of the building is £337,945.

*London. Colney Hatch.*—The introduction of hot water pipes into some of the dormitories and single rooms has greatly added to the comfort of the patients.

Every attendant is now allowed leave of absence for two whole days and three half days in each month, one of the whole days being, if possible, a Sunday. The annual leave has been increased to 12 days for attendants under two years' service, and 14 days for those who have served a longer time.

*London. Hanwell.*—In his report Mr. Richards states :—

Of the forms of insanity in those admitted, the most noteworthy feature is the gradually-increasing number of cases of those suffering from melancholia. This form of mental disease has undoubtedly been on the increase of late, and this I believe has been the experience of those who have the care and treatment of the insane. Formerly, the disease most prevalent was mania, accompanied for the most part with excitement, but now one is struck with the very large

proportion of persons who are admitted into asylums labouring under the depressing forms of mental disease, and I may add, from my own experience here, that of the recent and acute cases which come under treatment, by far the greater proportion are acutely melancholic, many having actively suicidal tendencies.

Concerning rest in bed, Dr. Alexander says :—

The average number daily in bed—about six per cent.—is larger than what obtains in most asylums. This is accounted for by the large number of far-advanced general paralytics we have, and by the great store we place on confinement in bed as a therapeutic agent in the treatment of cases of melancholia with refusal of food, and of certain cases of epilepsy ; attaching as we do so much value to bed treatment in these cases, we do not strive to “break the record” of the smallest number of patients confined to bed in any asylum. In connection with this question it is a matter of fair speculation as to the share that our bed treatment has in the production of the low death-rate that usually obtains in this asylum.

*Newcastle.*—A patient sustained a fracture of the fibula in an unusually easy way. When playing at cricket he was struck on the outer ankle by the ball. He continued his innings, and it was not until he attempted to walk from the field that he experienced any great pain.

*Marisbank.*—Dr. Keay mentions two cases which are of interest. It might be useful if he published them in the Journal, giving special prominence to the “active medical treatment” employed.

One case will appear in a future number of this Journal.

(*To be continued.*)

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## 2. Therapeutic Retrospect.

By HARRINGTON SAINSBURY, M.D., M.R.C.P., Physician to the Royal Free Hospital.

The use of cocaine is so widespread that a few words of caution against its indiscriminate employment may not be superfluous. From time to time cases in which alarming symptoms have followed the use of cocaine are noted, but they do not attract much attention. Dr. Edmund Falk, of Berlin, is the more to be thanked for having collected and tabulated 176 cases of poisoning by therapeutic doses of cocaine. The dose employed, with its method of employment, and the results following the use, are carefully set down. Dr. Falk excludes from his table not a few cases of syncope which have been set down to cocaine, but which he considers may be referred to the operation itself. He is also of opinion that a majority of cases have not been published, and further that a large number of cases of insanity are to be found in the asylums, which have arisen from the prolonged use of cocaine. The 176 cases which he has tabulated will, therefore, fall very short of representing the real toxic dangers of cocaine. Ten fatal cases are to be found in the list. Two of these fatal cases followed the use of a



four per cent. solution of cocaine applied to larynx or pharynx. One case followed the injection of 0.06 gramme ( $\frac{9}{100}$  grain) beneath the mucous membrane of the gums; another, the subcutaneous injection of a little over three grains. The smallest dose causing death was 0.6 grain (0.04 gramme) injected subconjunctivally. Short of death, very alarming symptoms are frequently noted, such as pallor, cyanosis, vertigo, fainting, collapse, unconsciousness, more or less prolonged, delirium, hallucinations, diminished general and special sensibility, impairment of vision, deafness, etc., etc.

A further critical survey of the dangers of cocaine is postponed to the next number of the "Therapeutische Monatshefte," but meanwhile we would direct attention to this most valuable synopsis in the October number of the above journal.

In the "Lancet" for Sept. 6th, 1890, Mr. Mayo Robson advises the use of Esmarch's bandage applied within half a minute of the injection and proximally to the site of the puncture. In this way he maintains that local anæsthesia is secured without the danger of general poisoning. This method is obviously only adapted to certain parts of the body ("Practitioner," Nov., 1890).

The addition of carbolic acid to cocaine solutions has been recommended by Dr. Gluck in the "New York Medical Record." The advantages claimed for this admixture are that the solution is more permanent and the local anæsthetic action increased, the carbolic acid acting also as a local anæsthetic; further, that toxic effects do not result from the use of this solution. The formula given is:—Carbolic acid (purs.), two drops; distilled water one drachm; shake till dissolved, then add cocaine 10 grains ("Practitioner," Oct., 1890).

Of late Mr. Rushton Parker has recommended resorcin as having similar properties to carbolic acid when combined with cocaine.

*Chloralamide in Mental Diseases. Record of Experiments in the Asylum of the Rhine Province at Andernach by Dr. UMPFENBACH.*

The drug was administered in solution in absolute alcohol (one part chloralamide to two parts alcohol). This solution was diluted by the addition of water and syrup—it was taken without difficulty by the patients. The dose began with 30 grains at night and rose to 90 grains per dose.

Fifty-five cases were treated, viz., 14 of mania; 13 of paranoia; three of melancholia; three of general paralysis; nine of excitement in idiocy; and eight of excitement in epilepsy. The result was satisfactory in 30 cases, unsatisfactory in 12 cases, transitory in 13 cases.

The conclusions arrived at are that, as Rabow and Strahan affirm, the drug is useless in mania, but in opposition to Strahan some good results were obtained in the excitement of epilepsy. By-effects were comparatively rare. The drug was well borne even after prolonged

use. No case of collapse occurred since those recorded in the Feb. number of the "Monatshefte." One case of scaly skin affection was caused by the drug; it affected the flexor aspects of the elbow and knee joints and spread upwards and downwards on the limbs. This with Pye Smith's case makes the second record of a similar skin trouble. For the rest chloralamide may produce eruptions like those of chloral. Dr. Umpfenbach considers chloralamide to be serviceable but not very certain, and to possess no advantage over chloral hydrate ("Therap. Monatsh.," Oct., 1890).

Amylene hydrate was tried at the above-mentioned asylum in seven cases of long-standing epilepsy. The dose was 5-8 grammes (75 grains to 120 grains). Good results were obtained in two cases. In a third case the attacks were in the first instance diminished, but subsequently the drug was without effect. In four cases no special effect was witnessed. No bad effects were witnessed with the exception of a troublesome sleepiness and insomnia for some time after discontinuance of the medicine. So far as these results go the value of amylene hydrate is not very apparent ("Therap. Monatsh.," Oct., 1890).

#### *Experiments with Orexine in the Treatment of Anorexia.*

The doses were 0.25-0.5 grammes (4-7.75 grains); they were given in the form of pills or of powders, the latter in milk or bouillon. The dose was given once or twice daily, and care was taken to administer a sufficient quantity of the broth or milk. The results obtained were good in 19 out of 30 cases (of these 30 cases 25 were mentally affected), *i.e.*, in 63.3 per cent. They stand numerically between Penzoldt's and Glückziegel's, who recorded some 70 per cent. of successes, and Iwrédy's, of Budapesth, 58 per cent.

Orexine certainly merits a trial as a stomachic. In its critical employment care must be taken to avoid suggestion ("Therap. Monatsh.," Oct., 1890).

Penzoldt's original paper is to be found in the "Monatshefte" (Therapeutische) for Feb., 1890. In the "Lancet" for Nov. 15th it is stated that Dr. Penzoldt recommends the administration of orexine in starch paper wafers instead of in gelatine-coated pills.

In the October number of the "Practitioner," a claim is advanced for the further trial of bromide of gold in epilepsy. The salt appears to have been beneficial after the failure of many other drugs in a case of hysteria gravis recorded in the proceedings of the St. Petersburg Society of Psychiatrists. The salt is also said to have proved very efficacious in suppressing epileptic seizures. The dose advocated is  $\frac{1}{2}$  grain. The "Practitioner" advises the admission of this compound to the list of bromides, to be tried if others fail. (*Vide* "New York Medical Record," Vol. xxxviii., No. 7., 1890.)

Biernacki records some very interesting experiments with strychnine. His proposal was to test the influence of the drug upon the cerebral cortex. The animals experimented upon were rabbits, and the method

was to expose the psycho-motor centres of the brain by trephining; to determine the minimal faradic stimulus which would give a definite contraction; then to administer strychnine, either subcutaneously or by painting the surface of the brain with very weak solutions, and then to proceed with the electrical testing of the cortex. The results he obtained were in all cases diminution in the cortical irritability. With the smallest doses 0.00004 and 0.00006 gramme (0.0006 and 0.0009 grain) of the nitrate of strychnine a result was not always obtained, but with 0.0015 grain it was always found.

An interesting point was the delay in the appearance of the result; the effect was not at its maximum for 27-30 min., and moreover slight signs of cord-action (strychnine-like) frequently appeared at this time.

The author concluded that the effect of strychnine is probably not direct upon the nerve cells in the same way that morphine and cocaine act, because of this delay; also that the depression of the functions of the cortex cerebri may in some way depend on the state of the irritation of the spinal cord, since the two effects, the maximum of the former and the minimum of the latter, come out together.

However explained, the diminished irritability of the brain is exceedingly interesting, and it explains the use of strychnine in epilepsy and in dipsomania—also its possible value as a sleep producer as, according to Brunton, it may act. The author suggests, further, its possible use in the treatment of unmixed cases of mania, and that moreover its use is likely to be witnessed for small doses, *e.g.*,  $\frac{1}{30}$  of a grain (0.002 gramme).

In the comparative absence of any definite experiments upon the influence of strychnine upon the brain, and in the presence of the assumption that its effects were almost limited to the grey matter of the spinal cord, medulla and pons, these experiments are very welcome ("Therap. Monatsh.," Aug., 1890).

#### *Exalgin.*

("Therap. Monatsh.," Aug., 1890.) Falk largely enumerates the toxic action of this drug in the above periodical. The symptoms include: *free sweating*, though this is not likely to arise with careful dosing (3-6 grains); *vertigo*, a common symptom appearing in from quarter to half an hour, and sometimes amounting to a sense of intoxication with dazzlings and noises in the ears; *confusion of thought*, this has followed a larger dose, and there has been recorded *impairment of vision*, followed by *delirium* and loss of *consciousness*. *Convulsions* have occurred. *Cyanosis* is not likely to occur with careful dosing. *Methæmoglobinæmia* has not been observed, though a reduction of the oxyhæmoglobin has been noted.

*Disorders of digestion* are uncommon. *Fugitive erythematous exanthems* have been described. The danger of this aniline derivative appears to lie in its effect on the blood. Its close alliance to antifebrin, of which it is a methyl derivative, is drawn attention to.

## 3. Italian Retrospect.

By J. R. GASQUET, M.B.

The chief feature in the psychological literature of Italy since my last report has been the multiplication of periodicals devoted to it. Thus we have received copies of the following new journals:—"The Annali di Freniatria," of Turin; "Il Manicomio," of Nocera Inferiore; "Il Pisani," of Palermo; and "L'Anomalo," a "*Gazzettino*," published at Naples. On the other hand, I regret to say that no copies have been sent since 1888 of Lombroso's always interesting, if sometimes paradoxical, "*Archivio di Psichiatria ed Antropologia Criminale*." To some extent these periodicals may be considered as equivalent to our Asylum Reports; and they doubtless show the great activity and zeal with which our specialty is studied in Italy. But from another point of view they seem to me no unmixed advantage. Each periodical is starved by the scattering of so much ability, which was formerly concentrated in fewer journals; and the space left vacant has been, to a great extent, occupied by matters of local, temporary, or secondary interest. When allowance is made for this, Italian psychological literature will be found quite equal to the high level it has attained in former years.

The principal subjects of interest in the *Archivio* are the following:—

Prof. A. Verga describes the fear of falling from a height, which he terms *acrophobia*, thus associating it with agoraphobia, claustrophobia, and the like. The interest of this condition is its frequent occurrence in persons of otherwise sound mind, as is shown by the learned author being himself an instance of this irrational fear.

Dr. Frigerio relates a case of syphilitic insanity, in which refusal of food was the most prominent and obstinate symptom. This was found to be due to *megalopsia*, which enormously magnified the bulk of the mouthfuls presented to him, so as to lead him to suppose he was unable to swallow them. Ophthalmoscopic examination showed the existence of syphilitic retinitis, which was not relieved by treatment.

Dr. Baronicini gives an account of the *granulated*, shagreen-like appearance of the *ependyma*, which has been remarked by Rokitanski and other pathologists. He has observed it in 32 out of 650 post-mortems in the asylum at Imola. Of these, 21 were males and 11 females. One of these was a case of alcoholic insanity, four were instances of secondary dementia, while the remainder had been general paralytics. These results are in opposition to the statement of Joire, that this condition is invariably associated with general paralysis. He is equally mistaken in supposing that it is an invariable accompaniment of the disease; for these 27 instances were the only ones observed out of 62 autopsies of paralytics. It was found almost equally commonly in cases which had run a rapid course, as in chronic ones. The morbid appearances with which it was almost always



associated were thickening of the cerebral membranes, and sub-arachnoid and intra-ventricular œdema.

Prof. Raggi has described a case of *unilateral auditory hallucinations*. The patient was a drunkard, suffering from delusions of persecution. He ascribed the voices he heard to some poison, which, he alleged, had been poured into his left ear by his wife. No disease of the ear could be discovered on examination; but the patient also complained of a constant inarticulate noise in the ears. He had bilateral hallucinations of sight. In another case, a woman of 70, hallucinations of sight occurred in the right eye which was affected by cataract, disappearing after operation, but recurring with greater intensity.

Prof. Bianchi, of Palermo, has studied the *tremor of general paralysis by means of Marey's graphic apparatus*. I wish I could reproduce his very interesting tracings. The following are, however, his chief results:—1. The most characteristic point about the tremor is its great inequality; it is non-rhythmical, and oscillatory rather than vibratory. 2. It ceases during repose, unless the patient is fatigued, but reappears on voluntary movement, even of distant parts of the body. Violent efforts may exaggerate the tremor until it becomes a spasm. 3. The patient had considerable power of temporarily arresting or disguising the tremor by an effort of the will. The author infers that in this form of tremor the successive stimulations which produce a voluntary movement are greatly slackened. This condition is, of course, common to all tremor; but this further point is characteristic of general paralysis, that the stimuli directed to any given muscular group are not fused together as in health, but the psycho-motor force is diffused and discharged by other channels, often distant ones, in an irregular and non-rhythmical manner.

Dr. Guicciardi gives an account of the effects of *massage* as tried in the Reggio Asylum. Ten cases are described in detail, the general results being decided improvement in the bodily condition of all, but mental amelioration only in slight cases of melancholia. In one case melancholic symptoms were replaced by maniacal excitement. As the author remarks, these results are the same as have been obtained in this country.

The amount of the *cerebro-spinal fluid* has been measured in 152 autopsies at Mombello by Drs. Gonzales and G. B. Verga. It was found always greater than in sane persons, being largest in all conditions of dementia. The sp. gr. was also higher than the normal, varying between 1,010 and 1,017.

Dr. A. Verga gives a careful analysis of the *statistics of insanity in Italy for 1888*, from which I borrow the following:—The number of persons of unsound mind recorded at this date was 22,424, of whom 11,895 were males, and 10,529 females. The proportion of the insane to 100,000 of the general population has gradually risen from 51.00 in 1874, the first year which admits of comparison, to

71.01 in 1888. Verga considers that this apparent increase is, in great part at least, to be accounted for by the increased asylum accommodation; the number of asylums having advanced from 43 in the former of these years to 82 in the latter. The proportionate increase is greater in males than in females; the difference being, however, very slight. Insanity is relatively most frequent between the ages of 41 and 60; is more common in the single than in the married or widowed; more Jews are attacked than those of any other religion; more persons slightly educated ("non del tutto illetterati") suffer than either the illiterate or the well-educated. The proportion is highest in the Emilia, the Marches, and Liguria; and lowest in Sardinia, Sicily, and the province of Naples. As to the prevalence of the several forms of insanity, it can only be said that states of exaltation are slightly more frequent than those of depression.

Prof. Tamburini's periodical, the "*Rivista Sperimentale di Freniatria e di Medicina Legale*," fully maintains its high character. The following are some of the most important articles:—

Dr. Vassale proposes the following modification of *Weigert's process for staining the nerve-centres*: The sections are first immersed for three to five minutes in a one per cent. solution of hæmatoxylin in distilled water; whence they are transferred, for a like time, to a saturated solution of neutral acetate of iron, in which they become very black. After washing they are plunged in a solution of two parts of borax and 2.5 of prussiate of potash in 300 parts of water. The ganglionic cells, the neuroglia, and the degenerated portions lose their colour, the medullary fibres remaining a dark violet. After careful washing the colourless parts may be stained with picocarmine according to Pal's method.

The same author writes on the relations of *renal disease and insanity*. He gives particulars of four cases, in which the first symptoms observed of sub-acute nephritis, or of an exacerbation in chronic kidney disease, were mental. In only one of these was there any other uræmic symptom. The obvious moral which he draws is, that the urine should be carefully examined in every suspicious case, where no other cause can be assigned for an attack of mania or delirium; also if there are any symptoms, such as intestinal catarrh, which are often associated with granular kidney. Dr. Belmondo describes the *spinal complications of Pellagra*. Degeneration of the posterior and lateral columns, and atrophy of the cells in the gray matter of the cord, are very frequent, with the corresponding symptoms of loss of power, exaggerated tendon-reflexes, paralytico-spastic walk, and tremor of the upper limbs.

In an article of great ability, Prof. Tamburini examines the nature of the bodily symptoms of *Hypnotism*. It is well known that the rival schools of Nancy and Paris have given different answers to this question; Bernheim, on the one hand, affirming that the three stages described by Charcot and his followers are merely artificial results of suggestion, while the Parisian school, on the other hand, hold that

the only true hypnotism known to science is "la grande hypnose," of which the bodily symptoms have been studied so exhaustively at the Salpêtrière. I may be excused for transcribing the conclusions at which this eminent author arrives:—

"1. The bodily phenomena of hypnotism, which are described as belonging to the so-called stages of lethargy, catalepsy, and somnambulism are met with in a few cases of hysteria major, independently of any suggestion.

"2. But these bodily conditions do not justify a nosographical division of hypnosis into three distinct stages, or rather 'three nervous states quite different from one another, each provided with its own proper symptomatology' (Charcot), because these symptoms may be found mixed and confused in the different stages, and also because they only represent so many manifestations of exaggerated reflex excitability, the variety of which is determined solely by the varying nature, intensity, and duration of the stimuli which are employed to bring it into evidence.

"3. These bodily phenomena are not characteristic of the so-called major hypnotism, because they are also observed independently of it, and of any suggestion, when fully awake, in cases of hysteria major, where they are present as so many 'hysterical stigmata.'

"4. Hence, in the few cases where they are observed during hypnotism, they are not the results of this, but are merely manifestations peculiar to hysteria, which are brought into evidence then, either by the increased reflex excitability, or by the stimuli employed, which act like injuries and other agents which reveal the latent hysterical diathesis.

"5. Hypnotism is not then a neurosis, since, in the few cases in which it seems to be such, it only displays pathological conditions which belong to the hysterical neurosis, either as pre-existing or latent, for which hypnotism is but a delicate test or revealing agent.

"6. Hypnotism is nothing but a simple state of induced sleep, which has no pathological character, but has the double property of increasing reflex excitability and suggestibility, which two conditions supply the key to all the bodily and mental phenomena of hypnotism.

"7. The conditions observed in the hypnotic state may vary indefinitely with the different condition of the subjects, whether healthy and robust, or feeble, or sick, or neuropathic, or hysterical to a slight or a serious degree; but all that in such cases gradually complicates the scene is due, not to hypnotism *per se*, but to the pre-existing morbid conditions which hypnotism merely brings into evidence.

"8. Hence the innumerable apparent forms of hypnotism, which have given rise to the divisions into major and minor hypnotism, and the like, are only due to artificial suggestion or to pre-existing pathological conditions superimposed upon different degrees of sleep."

Prof. Morselli has studied the *cranial anomalies* of 200 skulls preserved in Italian asylums. His main conclusion is that the occipital bone is more frequently anomalous than any other, and that fusion of

the atlas with the occipital is also much more frequent than in normal crania. He remarks that Lombroso came to the same results from his examination of the skulls of criminals.

The most interesting articles in the new "*Annali di Freniatria*" are two on *acetonuria* in the insane. Having examined the urine in 87 insane persons, Dr. Rivano found it to contain acetone 37 times; most often (nine out of ten times) in general paralytics, but also frequently (13 times in 21 cases) in melancholiacs. He connects its presence with malnutrition, and in melancholiacs found it particularly associated with refusal of food. The subject is continued in a subsequent number of the same journal by the editor, Dr. Marro, of Turin. He has found *acetonuria* especially frequent in cases where there has been terror, frightful hallucinations, etc.; and he believes the connection between them is a causal one. He refers to Prof. Lustig's recent experiments, in which faradic stimulation of the celiac plexus has produced temporary *acetonæmia*, and suggests that fear acts in the same manner.

Dr. Bozzolo gives, in the "*Rivista Clinica*," an interesting account of a case of *Hereditary Chorea*, which I notice because of the unusual association of this variety of chorea with mental disturbance. The case recorded had all the typical characteristics described by Huntington and others since. The voluntary inco-ordinated movements differ from those of ordinary chorea only by the possibility of checking them for a time by an act of the will. The disease attacks males and females alike; and appears between 30 and 55. It is transmitted from parents who have suffered from it. The mental symptoms seem to have been maniacal excitement with delusions.

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#### 4. *American Retrospect.*

By FLETCHER BEACH, M.B., F.R.C.P.

*State of New York.—First Annual Report of the State  
Commission in Lunacy.*

The asylums of the State are divided into the public, the quasi-public, and the private. Exclusive of idiots and feeble-minded women, the number of insane under custody on the 1st of October, 1889, was 15,507. The Commission consists of three members, a physician, a barrister, and "a citizen of reputable character." The medical and legal commissioners are required to make 132 visits each year; the medical commissioner is expected to make 22; and the whole Commission, or a majority thereof, have to make 106, being a total of 260 visits to the various State institutions during the year. Literal compliance with the requirements of the Act of 1889 is physically impossible, and the Commissioners detail certain arrange-



ments which will facilitate the performance of their duties. The systems of accounts and statistics in vogue at the several State asylums show a lack of uniformity, and the Commission believes that these systems can be unified; to this end they have suggested a conference of asylum managers and superintendents with itself. The first effort towards intervention by the State in the case of the insane was made by Governor Throop, in January, 1830, but it was not until January 16th, 1843, that the New York State Lunatic Asylum was opened. In the course of a few years the asylum was filled, and it became necessary to send back to the poor-houses those patients who had received what was supposed to be the limit of beneficial treatment. Their treatment in these poor-houses was so bad that the Legislature passed what is known as the "Willard Asylum Act," which provided for a State Asylum for the chronic insane. The Willard Asylum was opened on October 13th, 1869, but soon became overcrowded. At this time the debt incurred by the State in aiding the prosecution of the civil war was most grievously felt, and in 1871 the Legislature passed an Act, by which counties might, upon showing that they had made proper provisions, care for their chronic patients. On October 1st, 1889, there were 5,371 patients in the county poor-houses and State asylums for the chronic insane. The Commission inquired into the two systems of care and treatment—the one conducted by the States and the other by the counties—and found that the latter did not provide the facilities which one would expect to find in every well-managed custodial institution or in any ordinary hospital. Some illustrations of evils inherent in the system of county care of insane patients in county alms-houses are related, and the Commission concludes that the system "in practical operation has been found to have failed and fallen short of the hope entertained for it when the Act of 1871, sanctioning its trial, was passed." The Commission makes many recommendations, of which the most important are: (1) that all of the insane in the county poor-houses in all the counties of the State, except New York and Kings, be transferred at the earliest possible date to State asylums; (2) that all laws having for their object the division of the insane into the so-called classes "acute" and "chronic" be repealed, and that all the insane be treated solely with reference to their curability; and (3) that an asylum be provided for the helpless and unteachable idiots.

*Report of the Government Hospital for the Insane, Washington.*

It appears from this report that on the 30th June, 1888, there were 1,361 patients resident in the hospital; during the year ending June 30th, 1889, 280 patients had been admitted, 130 had been discharged, and 114 had died, leaving 1,397 under treatment. The recoveries are reported as 70, being 28·68 per cent. of the discharges, including deaths. The daily average number in the hospital has been 1,373, and the percentage of deaths to the daily average number resident is 8·30.

The patients admitted come from the army, the navy, marine hospital service, and civil life, and are composed of white and coloured people. The extension of the lodges for the coloured insane has changed the character of many of the patients; chronic turbulent cases forget to be noisy or destructive, and go to work in an orderly manner. Howard Hall, for the convict and criminal class of the insane, has been erected, and 63 patients have been moved into it; it is provided with 60 single rooms. A pavilion for the sick has also been opened. The statistics of the hospital for the last ten years show that it is necessary each year to provide additional accommodation for 50 patients. There is a night medical service. The pathological supplement to the report gives an account of 29 post-mortem examinations; of these 15 were made on patients who had suffered from general paralysis, and three on cases of acute organic dementia; eight patients had suffered from acute mania, and three were cases of acute insanity with maniacal symptoms, dependent upon organic brain disease. The symptoms, naked eye and microscopical appearances in each case are given, and the report is illustrated with fourteen woodcuts made from drawings of microscopical sections of the brain. Dr. Blackburn's work is good, and Dr. Godding is to be congratulated upon having a pathologist of such high order.

*Annual Report of the Department for the Insane of the  
Pennsylvania Hospital.*

Dr. Chapin reports that the number of patients in the hospital on April 22nd, 1889, was 393; during the year 178 patients had been admitted, 137 had been discharged, and 27 had died. The number remaining on April 22nd, 1890, was 407, and the daily average during the year was 404. On comparing the statistics of the present with the preceding year, it was found that there was a moderate increase in the number of patients admitted and discharged. The proportion of recoveries calculated upon the admissions was 25 per cent.; and the mortality calculated upon the average number resident was six per cent. Fifty per cent. of the admissions were regarded as recent cases, or of less than six months' duration. A larger number of recent cases now recover than at a former period, and the mortality at this stage is decidedly reduced. A gymnastic pavilion has been opened, and systematic instruction is given to a class twice daily. The physicians attend at the out-patient department of the hospital twice weekly, and have delivered sixty-one lectures to the attendants. At the request of Dr. Morton, Chairman of the Lunacy Committee, Dr. Chapin addressed him a communication on the subject of "the preparation of medical certificates," and he has included it in his report.

*The Family System in Practice.*

This is a report by Dr. Stedman of the condition of the boarded-out insane in Massachusetts. "The observations and conclusions

reached are drawn, with the exception of certain statistics, solely from personal investigation on the spot, of the operation of this system in Massachusetts after a trial of more than three years." Each patient was visited and examined in the house in which he or she resided without the previous knowledge of the householders or patients. The number of boarded-out insane on Nov. 3rd, 1889, was 66, 21 being men and 45 women. The patients selected for this treatment all belong to the harmless, chronic, demented class, which are so common in all asylums. They were found in (1) houses in which the surroundings were exceptionable; (2) houses reasonably well-kept; (3) houses more or less squalid and scantily furnished; and (4) dwellings in which the surroundings were extremely poor. Dr. Stedman says that with few exceptions these patients were generally found to be comfortable and contented. He makes suggestions for the complete efficiency of the system in Massachusetts, and concludes the paper by recommending some minor improvements, which the State Board of Lunacy and Charity might carry out.

*Seventh Annual Report of the McLean Asylum Training  
School for Nurses.*

In 1879 it was determined to establish a school, not only for the training of the attendants in the asylum, but also to fit young men and women, as in general hospitals, to undertake general nursing; and since the inauguration of the system four classes of women and two of men have graduated. In 1884, Miss L. E. Woodward, who had been for fourteen years supervisor, was appointed Superintendent of Nurses, and her long experience was supplemented by the privilege of attending a six months' course of practical study in the wards of the Boston City Hospital. There she learnt the technique of school work. The first seven years of the existence of the school show as results: 64 graduates, 19 remaining in the service, and 54 pupils under training. An arrangement was made in 1886 with the Boston Training School at the Massachusetts General Hospital, by which any female graduate of the school has the privilege of entering that school and receiving her diploma after completing satisfactorily the studies of its senior year. The graduates of that school are received at the McLean Asylum upon like terms. All the nurses are carefully instructed in giving massage and in other forms of physical exercise and movement treatment. Dr. Cowles says "the outcome is even better than was expected in so short a time, in respect to the number of graduates who remain in the service." As a result of the new order of things the asylum becomes a hospital in truth, and "both the humane and scientific spirit are invited to dwell in it." A circular of information to applicants, the course of instruction and the list of "graduates" of the school from the beginning are given at the end of the report.

## PART IV.—NOTES AND NEWS.

The Quarterly Meeting of the Medico-Psychological Association was held at Bethlem Hospital, November 20th, 1890, the President in the chair.

There was a large attendance.

The following gentlemen were elected as members:—Edward Emerson Rosenblum, M.B., B.S.Melbourne, Senior Assistant Medical Officer, Lunatic Asylum, Yarra Bend, Melbourne; W. F. Menzies, M.D., B.Sc.Edin., Assistant Medical Officer, County Asylum, Rainhill; Robert Sinclair Black, M.A., M.B., C.M., D.P.H., Pathologist, County Asylum, Whittingham, Preston; Charles Lloyd Tuckey, M.D., C.M.Aber., 14, Green street, Grosvenor square; Ernest Milner, M.B., C.M.Edin., Assistant Medical Officer, Leavesden Asylum, Watford; Walter H. Barker, M.R.C.S.Eng., L.R.C.P.Edin., B.A.Cantab., M.A.Melbourne, Deputy Medical Superintendent, Hospital for the Insane, Kew, Melbourne; G. Alder Blumer, M.D., Medical Superintendent of the State Hospital for the Insane, Utica, N.Y.; Wm. Douglas, M.D.Queen's University, Ireland, M.R.C.S.Eng., Medical Officer, Provident Dispensary, Leamington Spa, Dalkeith House, 7, Clarendon Place, Leamington Spa; James Cameron, M.B., C.M.Edin., Assistant Medical Officer, Dundee Royal Asylum; Francis Neel Gaudin, M.R.C.S., L.S.A., M.P.C., Medical Superintendent, The Grove, Jersey; Farbrace Sydney Gramshaw, L.K.Q.C.P.Ireland, L.R.C.S.Edin., The Villa, Stillington, York; Arthur Nicholas Little, M.B.Lond., M.R.C.S., L.S.A., Assistant Medical Officer, Holloway's Sanatorium; John Abernethy Hicks, jun., L.R.C.P.Lond., M.R.C.S.Eng., L.S.A., Assistant Medical Officer, Whittingham County Asylum, Preston, Lancashire.

Dr. POWELL exhibited a lock for single-room doors now in use at the Nottingham Asylum for outer doors and ordinary ward doors. The chief object was to avoid the slamming of doors. A knob was made to take the place of a key for fastening. The bolt was flush with the door frames, and all that had to be done was to lay a hand on the knob and shove the bolt. It could not be opened without the use of a key. The mechanism of the lock was extremely simple.

Dr. HYSLOP exhibited two pathological specimens:—

Section I. Fresh method  $\times 350$ . Vacuolation of nerve cell. (a) Several small vacuoles in one cell around region of nucleus; (b) Displacement or disappearance of nucleus; (c) Granular degeneration of protoplasm of nerve cell; (d) Nucleus vacuolation not confined to upper layers of cortex. Section II. Fresh method  $\times 500$ . Vacuolation of nerve cell from motor area. (a) Apparently primary vacuolation of nucleus of large pyramidal cell; (b) Granular destruction of cell protoplasm; (c) Vacuole surrounded by outer border of nucleus.

CASE.—E.I.C., æt. 27, admitted Oct. 23rd, 1890. Family history, *nil*.

History.—First attack seven months' duration; cause unknown. Began with simple melancholy ideas of being lost to God and man; constipated; wet and dirty. On admission almost stuporous, refused to speak, tongue foul, resisted everything, bowels confined; urine 1015, albumen. Subsequently continued in the same condition till Nov. 13th, when he developed peritonitis and died on the 15th.

Post-Mortem.—No cause for peritonitis found on examination. Dura mater was slightly adherent to skull cap. Inner membranes somewhat congested. In region of Sylvian fissure the membranes were matted together and could only be removed with difficulty, leaving the brain substance soft and torn. No evidence of coarse brain disease. On section of cortex of motor area there was found marked vacuolation of both nucleus and nerve cell.

### THE WORKING OF THE NEW LUNACY ACT.

Paper by Dr. Percy Smith. (See Original Articles.)

THE PRESIDENT—I will ask the Secretary to read the replies which he has received from superintendents in other parts of the country who have experienced similar difficulties in the working of the Act.

Dr. Spence, Burntwood, has found none except in the matter of filling up certificates, and that is righting itself.



Dr. Sheldon, Macclesfield, says the number of magistrates at first appointed was too few, but has now increased. The constant recurring formalities in the case of private patients is very annoying.

Dr. Wade, Somerset, says there is a difficulty in obtaining magistrate's signature for pauper patients in outlying parts of the country. Lunatics are carried from house to house looking for a magistrate. There is unwillingness on the part of the magistrates to have anything to do with the Lunacy Act.

Dr. Macdonald, Dorset, says the friends of private patients have experienced much difficulty because of magistrates' intervention. The general indefiniteness of many of the more important sections is sickening. The letter notices are disgraceful.

Dr. White, City of London, has found no difficulty. For the City *all* the Aldermen have been appointed to act.

Dr. Stilwell, Uxbridge, says he has had three applications for the admission of patients, but the friends when they heard a magistrate's order was necessary declined to take the necessary steps.

Dr. Bower, Bedford, says the appointment of too few magistrates has given trouble on several occasions. The forwarding of unopened letters to certain relatives has caused difficulty and done harm to the patient.

Dr. Weatherby, Bath, says the chief difficulty is want of knowledge on the part of the magistrates' clerks. With regard to the letter notices, only the worst lunatics have acted up to the suggestion. There will be no difficulty in getting the orders of admission duly signed in a district provided the medical men attending the case have the requisite knowledge of the Act, and energy enough to see it carried out.

Dr. Campbell, Assistant Medical Officer, Shrewsbury, says: Impediment to early treatment of pauper, but more especially of private patients, caused by the trouble relieving officers and petitioners have in procuring magistrates willing to examine lunatics and sign the necessary orders, in several cases has hindered recovery and rendered the prognosis unfavourable. There are worry, expense, and anxiety to the friends of insane persons, not only on account of the difficulty of obtaining an interview with the justices, but the ignorance of the latter when confronted with their duty. On account of these difficulties, persons who would otherwise have been placed in an asylum have been withdrawn from official cognizance. On account of increased clerical work, the superintendent and assistant medical officers have to spend time at the writing-desk which would otherwise be better employed in the moral and medical treatment of patients. In consequence of the fuss made about the employment of mechanical restraint and seclusion, chemical restraint has to be employed.

Dr. Ward, Warneford Asylum, says there is difficulty from errors in admission orders on account of magistrates and medical men being unfamiliar with the forms. More magistrates are required. A great many erasures are required in the forms, which nearly always call for correction, especially the one where the patient is certified to be or not to be fit for removal.

Dr. Savage, London, says there are difficulties arising from only a few magistrates being able to act. This is illustrated by a case, which also shows that the order-form must be provided by the petitioner, as the duty of the official authority is only to *sign*. There is also difficulty when the judicial authority assumes medical functions. A case illustrates this where the prejudice of the magistrates' clerk prevented action being taken in a suicidal case.

A medical man, who does not want the name of his asylum to appear, if his remarks are printed, says difficulty has occurred in consequence of a justice having signed an order who was not specially appointed for the purpose. The remedy is to make sure that a J.P.'s signature is by one specially appointed. The addition of a justice's address to his signature would be a great convenience.

In another case, the wife procured the necessary petition and certificates, but could find no magistrate at home. She objected going to a police magistrate and making a police case of it.

In another case, a melancholy patient implored to be sentenced and executed for his crimes. Notice was given to the patient that he could see a magistrate, and the request form was filled up. The patient thought the magistrate was going to sentence him to death. The result may be imagined.

In another case, the magistrate signed the order for the reception of a private patient though the medical examination had been made a month previously to the petition being obtained. The friends were upset because the medical superintendent would not admit the patient.

Dr. Hack Tuke, London, has sent me an important statement, which can only be read as a whole.

Dr. FLETCHER BEACH—Altogether 17 answers have been received to the slips sent out in the October number of the Journal. Four only have not found difficulty in the working of the Act.

Dr. SAVAGE—Although it appears to me that we must remember that the Act is on its trial, and that magistrates may improve, I quite agree with what Dr. Percy Smith has said—that all magistrates ought to be allowed to act; that the difficulty is, that one magistrate being qualified, his next-door neighbour not being qualified, and then the next perhaps being qualified, there is in consequence endless confusion. Then as to the question of signing the order. It appears that it is necessary for the petitioner to have the order ready for the magistrate to fill up, attached to the rest of the papers, for in one case of a suicidal patient, the whole certificates having been signed rapidly with the idea of getting him under control at once—he residing in a house where there were three or four women, and being utterly beyond control—the forms were taken to the magistrate, but there not being a form for the order, he declined to have anything to do with it, saying that his duty was to sign an order when brought to him and not to provide one. Therefore, because the form of order was not at hand, the patient had to be sent back uncertified. The difficulty was got out of for the time, as many of these difficulties may be, by the use of an urgency order. The next thing is the difficulty in a case in which a magistrate distinctly decides to act on his own judgment and recommends treatment. I may mention the case of a patient who had been advised upon by six or eight of the leading physicians and surgeons in London, including the ex-President of the College of Physicians and the President of the College of Surgeons, the Physician to Guy's, the Physician to University College, the doctor who had known her from her childhood, the doctor who had known her for very many years, and two local doctors, where she was stopping as a voluntary patient. These gentlemen all gave their opinion that she was only fit to be under certificate. They did not wish to send her into an asylum, they wished to have authority to see her. The magistrate went to see that patient, and although she had attempted suicide, and the opinions of these doctors were given that it was absolutely necessary that she should be controlled; though the magistrate knew that she had taken no food for three days and a half, and that she had said that she had but one desire, which was to get away from where she was to have connection with certain persons—notwithstanding all that, he declined to sign the order for detention in a private house and recommended that she should go for a little change of air to the seaside! For a time there seemed great risk. Her mother had to be sent for from a distant part of England, an urgency certificate was obtained, and then another magistrate living in the same district had to be persuaded to sign the order, having of course laid before him the reasons for the dismissal before. That is a real practical difficulty. You may say that these magistrates may be educated, and there is a way out of the difficulty, but one feels that for the practical treatment of cases the Act works badly. Two other cases have occurred quite recently in which one is afraid to recommend patients to be under certificate simply because one knows that though there is evidence enough to satisfy any medical officer that the patients are insane and ought to be under control, yet it is rather loss of control than the presence of delusions

that characterizes the insanity, and, therefore, these persons who have lost their control may temporarily recover themselves, as it were, before a magistrate and deceive him. So that at this present moment there are two patients that ought to be under certificate, and for their own good under control; but medical men of experience decline to certify because they are sure that no ordinary magistrate will act, and they know that if they certify, and the patient is after all allowed to go free, it would be much more dangerous to society than if no steps at all had been taken.

Dr. HACK TUKE—I should like to support all that Dr. Smith has said. As a member of the Bethlem Committee, I have seen the practical working of the Act in most of the cases to which he has referred, and certainly the labour and annoyance which it has caused have been very great indeed, the greatest of all being the delay in placing the patient promptly under proper care and treatment, and the increased expense, not only with regard to the small fees mentioned by Dr. Smith, but in many other ways. For instance, a patient is brought up to London and arrangements made for that patient being placed in Bethlem Hospital or some other asylum, it being hoped that he or she will be admitted on the same day; but the difficulty of getting a magistrate on that day is often so great that the friends of the patient have to stay in London for at least a night—often two—very much to their inconvenience and cost. I have seen several cases of this kind which have shown very forcibly the way in which the Act at present works. Therefore, both from what I have seen myself, and what I have seen in connection with Bethlem Hospital, I feel very strongly indeed that the working of the Act in regard to the action of the magistrates is injurious; and if it is possible in any way to mitigate the evils connected with it, we ought to do all in our power in that direction. Then there are so many formalities required, so many papers to fill up, so many detailed statements made that it is most difficult for people to avoid making some omission or actual mistake, do what you will. With regard to another point, one which comes before us at Bethlem, that is the regulation that some member of the Committee a month after the admission of the patient shall satisfy himself on behalf of the Committee that the patient is properly detained, and see the report made by the Superintendent at the close of the month after admission, I may say that this involves much trouble; and if the member of the Committee who does it is not a medical man, it may well happen that his going to see the patient and initialling a paper to say that the patient is properly detained in the asylum is a complete farce. And then, of course, what is yet to come, and will tell so hardly upon the superintendents of large pauper asylums, when the reception order expires at the end of the year, or in chronic cases at a longer period, will throw an enormous amount of work upon the asylum officers; I understand, indeed, from one superintendent to-day, that in view of that extra work he is going to have an additional medical officer in his institution. On these and many other grounds I am forced to the conclusion that the practical working of the Act is at present mischievous, and this to a greater extent than many of us expected. The whole thing is characterized too much by red tape; and in illustration of that I may hand round a comic drawing by a gentleman who is no mean artist, and formerly on the staff of Bethlem Hospital, in which you will see he represents a figure swathed in red tape. Whether it refers to the patient or to the superintendent it is equally clever. That really in sum and substance is, I think, the great evil of the Act, that it is red-tapism almost from beginning to end.

Dr. BLANDFORD—I may state that my experience of the Act is nothing like the experience of gentlemen at Bethlem, but I have suffered not so much from the unwillingness of justices to sign orders, but from their too great willingness, that is to say, they have signed without being specially appointed for the purpose, and they do not seem to know whether they are appointed or not. This is a source of immense confusion and expense both to us and to the friends of the patient. A patient is sent up, as has been stated, from the



country with an order signed by some justice or other, and we have no means whatever of knowing whether he has been properly appointed or not, and, indeed, why should we have to find this out? The papers go before the Commissioners, and in process of time come back again, and then the justice is referred to, and it comes out that after all he is not appointed. By that time the medical certificates have got out of date, and fresh certificates have then to be signed. The friends may have to be brought all the way up from the country to see some properly-appointed justice in London, and no end of trouble and expense is caused in that way. I think it will be a very great improvement to the Act if every magistrate were allowed to sign, and I believe in some counties that is the case. There are various other points in connection with the Act which work badly, and which I should like to discuss here, but I do not think we can enter upon that at this period; we have quite enough at present before us.

Dr. THOMSON—I should like to ask whether there has been a definite decision as to what constitutes the pending of a petition subsequent to the granting of the urgency order. I think we understood Dr. Percy Smith to say it was necessary that the petition had been actually presented to constitute what is meant by pending. I should like to ask for information on that point.

Dr. R. JONES (Earlswood)—As a practical outcome of this discussion, I may say at present there is a British Medical Committee inquiring into the working of the new Lunacy Act; and it might be of advantage if we were allowed to make use of Dr. Smith's paper, and also of the opinions read by Dr. Fletcher Beach before that Committee. No doubt this Act is on its trial. Meanwhile we have to ascertain whether it is considered desirable that its working should be smoothed. If that is the general opinion, I shall be very glad to do what I can in furtherance of that object.

The PRESIDENT—I imagine it would be open to this meeting and this Association, if it thinks proper, to take any action of its own as the result of this discussion, or, if it thinks well, to endeavour to strengthen the hands of the British Medical Committee, they having a common object. It will be for this meeting to say whether, as the result of our discussion to-day, some representation should not be made with a view to rectify some of the difficulties that have been referred to.

Dr. PERCY SMITH—I may say, in reply to Dr. Thomson, that the decision arrived at is that a petition is only to be considered as pending when it has actually been presented.

Dr. CLAPHAM—I may mention that in the West Riding of Yorkshire the magistrates are spoken of as belonging to one or other division of that county, which means nothing at all. I do not know whether those divisions are political or otherwise. The addresses of the magistrates are not given. It is therefore a very great difficulty indeed to find out who are the particular magistrates belonging to your division. I may say also that when you have found them the patients and their friends very often object to appear before a magistrate.

Dr. WEATHERBY—I may say that, with regard to my own district, that of Bristol and Bath, the Act seems to work smoothly. The clerk to the magistrates of Bristol sent out a notice to all the medical men in the district to say who the magistrates acting under the Act are, and that they are to be found every morning at certain times, and that the petition can be signed at those times. They do the same in Bath. In the county of Somerset all the magistrates are appointed to act in their districts; but a difficulty has arisen from the fact that the clerk has not known his duty, that is to say, he has kept back the petition, thinking that he ought to keep it and only send the order. The magistrates in Bristol have medical men appointed who see to their pauper cases; and the first case which came before the Bristol magistrates happened to be one which was sent to my asylum. The clerk said: "The magistrates will not look at your medical certificates;" and yet one of the medical certificates was signed by the doctor appointed by them to see the patient. A great



row was created, and the matter was brought before the British Medical Association.

Dr. BAKER—I have had very little difficulty myself with the new Act. Perhaps the magistrates appointed have been people who have known their business. The difficulty that has presented itself to me has been that already mentioned, of an individual member of the Committee having to visit a case at the end of the month. My Committee have always been guided entirely by their medical officers; and they do not like to have to visit the patient and to express an opinion as to the sanity or insanity of a patient a month after admission.

Mr. ADAMS, J.P.—Although I am not a member of your Association, I am a medical man, and one of the judicial authorities for London. I came rather to learn than to speak. I was very anxious indeed to learn how my brother magistrates had been doing their work in London. I had heard, directly and indirectly, that there were many difficulties in carrying out the Act, especially in some of those cases which Dr. Smith has put before us. Knowing that, I brought the matter before the County Sessions at the last county day, at the time the new appointments were made, and urged that the judicial authorities then appointed should be called together for the purpose of discussing their duties; for I felt very sure, from what I knew of the irregular way in which my brother judicial authorities were acting, that, though they were—I will not say, ignorant of the Act, there was a great difference of opinion as to what their duties were with reference to granting the reception order. It was thought premature, at all events, to discuss the question or to call them together, and our Chairman, Sir Peter Edlin, suggested that the matter should be put upon the agenda paper for the next county day. I shall be greatly fortified in bringing that matter before the justices on that occasion by the remarks which I have heard from Dr. Percy Smith, and I hope his paper will be printed, because it will be a very great help to us. I have no doubt whatever that the justices appointed are very desirous of doing their duty, and also to carry out the Act properly; but there is amongst the non-medical element a great deal of ignorance prevailing as to what really should be done. I know some justices will not act at all unless the clerk is present. Of course, every medical man must know that that would be attended with a fearful amount of loss of time, and it really might lead to dangerous consequences to have to send out to the justices' clerk to bring him to the patient's house, whilst a sort of legal inquiry was carried on, before the judicial order was granted. I know that that was the case with one of the justices in my own Petty Sessional Division; but, happily, he is not re-appointed for the current year, he having declined to act. I think if we can bring the judicial authorities together as we are here to-day, and have such a paper as that of Dr. Percy Smith's read to them, they will then see exactly the points of difficulty, and how important it is that they should be carefully attended to. I hope we shall get some information from members present as to the duties of judicial authorities in acting beyond their own Petty Sessional Division. I confess I have a very strong feeling, being appointed for my own (St. Pancras), where three others besides myself are appointed, that the proper and more workable plan would be if the justices would confine themselves exclusively to their own Petty Sessional Divisions, and, that being so, we should take care that two or more of them should always be ready to act; so that if a judicial authority leaves town he should depute a brother justice to do his work. If the justices realize their responsibility in that respect and carry out their duties thoroughly, I do not think there will be any difficulty. One other point I should like to mention is with regard to cases that are sent from one's own Petty Sessional Division under urgency orders. It has happened in two or three instances in my own division—and I believe one or two of the cases came to Bethlem—that after being admitted on an urgency order, then the petition was presented to me to sign. Now, I do not think that the justice should be called upon to go beyond the bounds of his Petty Sessional Division to grant an

order. I think if, under an urgency order, a patient is taken away on the certificate of the doctor and a relative and is admitted to an asylum, unless the asylum happens to be in his own Petty Sessional Division, he ought not to be called upon to follow that patient or even to incur the responsibility of signing any order without seeing the patient. There is considerable difference of opinion as to whether justices should visit the patients. In my own case, as a medical man, I prefer to exercise my right of seeing the patients, not, perhaps, to raise any question whether the patient is insane or not, but if the patient is not seen by the judicial authority before he signs the reception order, what is the result? The patient is to be presented with a notice by the superintendent of the asylum that he or she has a right to be brought before a magistrate to be examined. One knows that in many cases, especially acute cases from drink, they recover very quickly, and it might be an awkward thing if one signed the order without seeing the patient, and then another judicial authority was called in, found the patient was not insane, and ordered his discharge. That is obviated absolutely by the justice going to see the patient. I prefer, then, and I intend to exercise that right, to see all my patients, and I do not think, except under very special circumstances, I shall be inclined to sign a reception order without going to the house, seeing the patient, his certificates and surroundings, and then granting the order. There are one or two points that Dr. Tuke referred to with regard to patients being brought up from the country to be admitted to Bethlem, as throwing blame upon the judicial authorities in London for not facilitating the admission of such a patient. I do not quite know how the Act would work in that matter; but it seems to me that all the forms should be complied with, and the order should be given in the county from whence the patient came, and that there should be no further trouble given to the judicial authorities in London. I thank Dr. Smith for the paper he has read to us. It has exposed a great number of faults on the part of judicial authorities, and I hope that his paper will find its way into print; and I will do my best to lay it before my judicial friends in the County of London. I may say, with regard to the appointment of justices, I believe there will be no difficulty whatever in appointing any number. They are not selected. In London a letter was sent to every justice before the 29th of September asking him if he would be disposed to take upon himself the duty of a judicial authority, and, I believe, everyone that replied to that letter was so appointed. The difficulty is to get an ordinary justice of the peace to take up these responsibilities.

Dr. HACK TUKE—In reference to one remark of Mr Adams', I would say that the friends of a patient in the country very frequently strongly object to making the illness of their relative known to the local magistrates. That is one reason why the case comes up to London without a reception order. A second reason is that, in many cases in the country, the magistrates object to act even more strongly than in London; and a third reason is that, when the forms are filled up in the country, it is usually found, when they come to London, that there is some blunder, and it has to be all gone over again.

I should also state that I have obtained the names of magistrates, from the proper authority, on whom I could rely to sign orders in one division of London. I called on one of them and found he had let his house for six months. A second was out, and I was told that he went to the City immediately after breakfast and came back to a late dinner, and, therefore, was not available, and so on. The result is that the difficulty is extremely great in getting hold of a magistrate who can, and if he can, who will, sign the order.

Dr. RAYNER—A difficulty may arise from the character of the delusions of the patient. In a case where a patient had a delusion that she had been drugged and raped by a medical man—she had had other melancholic delusions, was disposed to cut her throat, and so on—if she had been seen by a magistrate it is quite possible that he might have thought there was some foundation for

the delusion, and it might have led to some unpleasant consequences. During the discussion of the Bill I strongly objected to the whole body of magistrates being appointed. I preferred that a limited number should be selected. I thought then, and I still think, that a wholesale appointment to these duties would be objectionable. I cannot, therefore, support the proposal.

**THE PRESIDENT**—It seems to me desirable that this discussion should not end in merely a blank shot, but that some definite steps should be taken. I think the paper should be circulated amongst the gentlemen who are specially interested in the matter. Perhaps the Parliamentary Committee might take the matter in hand, and circulate either this paper or any other information that they think proper, and so bring the weight of the opinion of the Association to bear, and get these matters rectified. I am exceedingly thankful that in Scotland we are free from this perplexing Act.

**DR. NEEDHAM**—I think it is very undesirable that we should adopt any resolution expressing our feelings about this Act, which would go to the Lord Chancellor. Of course, we are all perfectly conscious of the great difficulty of working it—nobody can dispute that for a moment. We said all we could against the various clauses of the Act before it was passed, and objected to it in every possible way. We objected to the introduction of the magistrate because we thought the introduction of a lay person to decide questions which were medical was not at all a desirable thing. But however, all our remonstrances were perfectly unavailing, and the Act became law. It does seem to me, therefore, that it would be rather unwise on our part to formulate any resolution which would go to headquarters about this Act. I think we ought to give time to the people who have to work it to become familiar with it, and I would much rather try and adopt some method of informing the magistrates as to their duties. It seems to me one of the blots in the working of the Act is the quite insufficient appointment of magistrates. I must say in my own county the Act has worked comparatively smoothly, although there have been hitches and some difficulties, and the reason is that all the magistrates of the county are specially appointed. You go to any magistrate in the county of Gloucestershire; you cannot get wrong, because every man is appointed as a special magistrate for the purposes of this Act. If that was done all over the country this particular difficulty would vanish. Of course magistrates, like other people, do foolish things. A man sent me a patient the other day with an order signed by a magistrate who had never even seen the petition; in fact, there was no proper petition. There were half-a-dozen lines written on a petition. There was no signature, no statement of particulars. The consequence was, from my point of view, that the magistrate's order could not be made valid. Therefore I sent my patient into Gloucester that he might have a fresh magistrate, who saw the patient, and gave an order which was in perfect form. There is another very serious difficulty, and that is that in the order there is no provision made for the address of the magistrate being given, and if there is any informality one does not know where to find him to get any alteration made. That has happened to me once or twice. I think the great thing for us to do is to let the public feel the inconvenience of an Act which they demanded, and which has been passed in obedience to this public demand, and as soon as the public have sufficiently felt the inconvenience of an Act which we always objected to, I think they will demand a public remedy.

**DR. SAVAGE**—I cannot see that any harm could arise by circulating to the judicial authorities engaged under this Act the address given by Dr. Percy Smith, and will formally propose that that be done.

**DR. NEWINGTON** seconded the motion.

**DR. WHITCOMBE**—So far as we have seen at present the errors made in carrying out this Act are confined rather to the Metropolitan area. The whole business seems to me rather one of magisterial duty. I have received several private patients, and had no difficulty whatever. I would like to point out to Dr. Smith that the Act provides for the rectification of clerical errors, and so on.



Dr. NEEDHAM—I should like to supplement what I have said by expressing my great gratitude to Dr. Percy Smith for having brought the subject before us in the way he has done, and given us these facts. It is very desirable indeed that we should circulate his paper.

After a brief discussion, it was agreed that the paper should be printed and circulated among the judicial authorities in the Metropolitan area, and that a certain reserve should be kept in the hands of the Secretary for the use of any superintendent of a public or private asylum who might wish them to be circulated in his district.

Dr. WEATHERBY asked whether the quarterly meetings could not be fixed a longer time before the meetings than a fortnight or three weeks. Many country members would, he thought, avail themselves of the opportunity of coming to the meetings much more frequently if they knew their date a month or two beforehand, as they could then make their arrangements for coming to London coincide with the date of the meetings.

The PRESIDENT said the matter had been carefully considered by the Council, who found there was great difficulty in fixing the dates earlier. To a good many people, including the readers of papers, notices were sent out by the Secretary a fortnight or three weeks before the meeting. It was found impracticable to do more than that, or at the beginning of the year to fix the meetings for the year.

Dr. PERCY SMITH then replied. Several members have said they have not much difficulty with the Act, but that must simply be because they have had very few private cases to admit. In Bethlem, since the 1st of May, we have admitted 145 new cases, exclusive of voluntary patients, and of those 62 have come in on urgency orders, meaning, of course, three certificates for each of them. Out of those cases I think about 100 had not been seen by the justices before admission. Considering the large number of acute cases, it cannot be surprising that in 81 it was certified that it was prejudicial to them to be taken before the magistrate or a justice. The other 19 or so I think gave notice of an interview, but only four desired to see the doctor. There has not been much difficulty in that way, but still, of course one has to go through the process of deciding whether you should admit the patient; there is a distinct mental effort in each case. Then Dr. Tuke spoke of the inspection by the committee of a copy of the superintendent's report at the end of the month after admission, and the examination of the patient by one member of the committee. As we have the great advantage of having Dr. Tuke on the committee, of course it is very simple, but I think from a medical point of view one would feel it rather degrading to have to submit the question of the proper detention of a case of insanity to a member of the committee who perhaps had never been in the place before in his life, and is perhaps a new member. With regard to Dr. Jones' remark as to the British Medical Association, there has already been communication with Mr. Ernest Hart about it, and it is hoped that the facts will be laid before the committee referred to. Another thing that occurs to me is that medical superintendents require a special examination in geography to see whether they can carry out the Act. I do not know where the county of Surrey begins or ends, and even if I did know, one side of a street may be in London and another in Surrey, and the same justices may be perfectly able to see the patient in both cases, and yet not able to act. Mr. Adams spoke of the justice acting only in his own petty sessional division, but any justice in London has a right to act in any part of London. And with regard to the justice seeing the patient before signing, we find that 100 cases have not been seen by the justice before signing. Although a medical man may say whether the patient is all right, yet the inexperienced justice can go into the patient's case, and worry the patient very much and do great harm. One feels the uncomfortableness of sending a justice of the peace to see the patient after the order has been signed without seeing him, and yet he cannot see the uncomfortableness of having to sign at all. Then, with regard to patients from the country having the trouble they have about justices, in one case from Sussex the justices of Sussex had



improperly detained the petition. There was nothing else to be done but take the patient to a London justice and have a fresh order, unless he was taken to the workhouse for the night, to allow of time to get back the petition. No wonder that it is found more convenient to apply to a London magistrate, assuming he is willing to do his duty.

Mr. ADAMS—I should like to ask Dr. Percy Smith whether his experience is that things are improving.

Dr. PERCY SMITH—There were a number of cases in November, and also at the end of October—in fact, all through.

Dr. NEEDHAM—By the 35th clause of the Act it does not seem to me that it is the business of the superintendent to decide as to the jurisdiction of the magistrate.

Dr. PERCY SMITH—Clause 9 says: "The powers of the judicial authority shall be exercised by justices of the peace specially appointed."

Dr. NEEDHAM—The onus lies on the people who bring the patient, not on the superintendent.

Dr. SMITH—The Commissioners say it lies upon us.

Dr. NEEDHAM—I should refer the Commissioners to the Act.

#### SCOTCH MEETING OF THE ASSOCIATION.

The Quarterly Meeting of the Medico-Psychological Association was held on the 13th November in the Hall of the Faculty of Physicians and Surgeons, Glasgow. Dr. Yellowlees, President of the Association, occupied the chair, the other members present being—Drs. Buchan, Campbell Clark, Clouston, Hyslop, Ireland, Carlyle Johnstone, Keay, Macpherson, R. B. Mitchell, A. Robertson, Rorie, Watson, and Urquhart (Secretary).

The minutes of the last Scottish meeting were read, approved, and signed.

The following new members were duly elected:—

Frank Hay, M.B., C.M., Assistant Medical Officer, James Murray's Royal Asylum, Perth.

John McCubbin Johnston, M.B., C.M., Assistant Medical Officer, Govan Asylum, Glasgow.

Alexander Keiller, LL.D., M.D., F.R.C.P.E., 21, Queen Street, Edinburgh.

Robert Lawson, M.D., Deputy Commissioner in Lunacy, Edinburgh.

George R. Wilson, M.B., C.M., Assistant Medical Officer, Royal Edinburgh Asylum.

Dr. A. ROBERTSON reported a case of recovery from Acute Dementia: Treatment by Heat and Cold and by Electricity to the head. (See Clinical Notes and Cases.)

Dr. CLOUSTON remarked that they were all much indebted to Dr. Robertson for this report. Personally, he must only regret that he had not used one of Dr. Robertson's "caps." He should certainly do so after hearing this case. The question came to be whether this was a cure due to therapeutics or whether it was a case of ordinary recovery. Was it an ordinary case of stupor?—though stupor at that age was rather uncommon. It might be important to learn if improvement had not set in before the application of his treatment. Hitherto they had all used electricity, friction, massage, good food, fresh air, stimulating moral treatment; but they had still to make use of the cap introduced by Dr. Robertson, and apply heat and cold to the heads of stuporose cases. And if they applied it in stupor, why not in many kinds of melancholia, in cases where there was a want of general energizing in the brain convulsions? This treatment, at any rate, was well worth trying.

Dr. IRELAND said it seemed to him that Dr. Robertson had the right to claim a very remarkable success. No doubt the point here was the novelty in the

application of heat. Electricity had been used in a great many cases—sometimes with very good effects—and had been deemed most successful in cases of melancholia. Dr. Robertson had given them no explanation of the theory of the cure, but he had brought into play powerful agents, most of which affected the circulation. He (Dr. Ireland) had always considered that acting upon the vessels of the brain would lead to hopeful results, and he was not sure if other methods or agents would have the same effect. There were few cases on record where heat was applied to the extent to which Dr. Robertson used it, viz., a temperature of  $120^{\circ}$ . He would accept that statement only from a physician of Dr. Robertson's known care and experience. He had seen cases of sunstroke at a lower temperature.

Dr. RORIE wanted to know how much importance Dr. Robertson attached to heat and how much to electricity? He (the speaker) had used an interrupted current with good effects.

The PRESIDENT considered the case and its treatment very interesting, although it was true that favourable cases of this type often recovered within the same period of time under the ordinary treatment. He felt strongly with Dr. Ireland that a temperature so high as  $120^{\circ}$ , especially when alternated with ice cold water, was a very powerful remedy, severely testing the vascular system, and not to be used without the greatest care. A current of ice-cold water applied to the head for 20 minutes continuously in a case of stupor seemed to him very emphatic treatment not free from danger. He supposed the idea of alternating heat and cold was to quicken the tone of the sluggish vascular system. It appeared that Dr. Robertson had used other means of treatment as well—general stimulation, good food and attention to the bowels—so that the patient had every possible chance. The use of alcoholic stimulants in stuporose cases was a practical question worthy of a remark from someone. Were such cases usually benefited by freely administering alcohol?

Dr. URQUHART—Certainly.

Dr. ROBERTSON, in replying, said it was only when the case was not progressing favourably that he determined upon this special mode of treatment. He was induced to believe it to have been beneficial because improvement resulted soon after the application of heat and cold. The intelligence brightened, and the patient was able to feed herself. When such cases were threatening to become chronic (the patient remaining month after month in the same state) it was important to alter the existing condition somehow, even although there should be a slight risk of bringing on some other trouble. He took it there was a want of circulation in the brain cells, and a stimulus was essential to bring about a more active circulation. With regard to the temperature applied, in the first case it was generally  $110^{\circ}$  or  $115^{\circ}$ . Under that temperature there was no faintness, nor even up to  $120^{\circ}$ . The water was kept circulating through the pipe of the cap at  $120^{\circ}$ . Of course indiarubber was a material which did not conduct heat very readily; but the temperature must have been very near  $120^{\circ}$  all through. The question had been raised as to how much of the result had been ascribed to heat and how much to electricity? These means of treatment were used at different stages. A time came when there was no apparent change after two or three weeks use of the water-cap. He then proceeded to use massage and improvement was visible, and on the application of electricity there was still further amelioration. He was surprised to hear that Dr. Rorie had used an interrupted current to the head. He (Dr. Robertson) had never used that. He had always used the continuous current, because there was less of a shock, it was less painful, and its modifying effect on nutrition was greater. He had found it safe in all cases. With regard to the shock from the alternation of heat and cold, he had to say that the change of temperature was effected gradually. They did not turn on the hot water all at once, but reduced it by degrees until it became ice-cold.

Dr. URQUHART called attention to the tenure of appointment by Attendants. This subject had been forced on his notice by two recent cases. Dr. Conolly

Norman had made a communication to him on one case (See Occasional Notes of the Quarter). The other case had occurred in his own experience and almost at the same time. He had seen two attendants illuse a patient, but unfortunately there was no one at hand, sane or insane, to corroborate his evidence. They were dismissed next day after the usual communication with the Procurator Fiscal and the Board of Lunacy. Through a Perth lawyer they claimed wages, and board wages for a month, denied having in any way ill-treated the patient, and alleged wrongful dismissal. There were no marks on the patient; and, acting on the best legal advice, the committee paid the claim so made. He therefore urged that some change should be made in the form of declaration signed by attendants to obviate recurrence of such cases.

The PRESIDENT had great sympathy with Dr. Urquhart, and should have been inclined to go into the witness box and fight it out before a jury. He thought the jury would take the word of a superintendent—who was the legal guardian of the patient—for what he had seen with his own eyes, before the word of an attendant, who was interested in the denial. He would suggest an addition to the last clause of the "Declaration" signed by attendants, viz.:—"Upon such evidence or information as may to the Medical Superintendent seem sufficient." That appeared to him to be all that was needed.

Dr. CAMPBELL CLARK said that he had experienced several cases. He had occasion to discharge a man for damaging property and insolence to the head attendant. In that case the committee paid a month's wages and board wages on threat of an action. He had discharged another for striking a patient, the Fiscal declining to proceed on the evidence of two patients and one attendant tendered by him (Dr. Clark). He also threatened an action, but the result of the investigation of the Visiting Commissioner stopped procedure. A third case of dismissal for insubordination did not get into the courts. The Sheriffs do not always take the same view of these matters. Dr. Clark concluded by recommending that the declaration should be stamped.

Dr. HYSLOP (Natal Asylum) related how some attendants who went out to Natal took an agreement with them which was signed in London. The declaration on arriving there was not approved of, and was submitted to the Attorney-General, who pointed out that the document was useless unless it was stamped. A new document had to be drawn up.

The PRESIDENT—It is a question whether as a matter of asylum discipline one ought often to dismiss instantly.

Dr. CLOUSTON—For no cause?

The PRESIDENT—Only in really grave cases. The moral effect of instantaneous dismissal is not always so good as dismissal by notice. When a good attendant makes a mistake and under great irritation gives way to temper, it is a momentary lapse, and it depends very much on the person how you would deal with it. I am satisfied that dismissal at a month's notice is often better than instant dismissal. Instant dismissal too often gives to the other attendants an impression of harshness and injustice, and makes them think that we do not properly sympathize with them in their most difficult duties.

Dr. CLOUSTON recalled a case which came up two years ago, and where the sub-Sheriff at Edinburgh sentenced the attendant to a month's imprisonment on the evidence of one patient alone, corroborated by the fact that there were marks upon the body, and on his (Dr. Clouston's) evidence that the patient was able to give evidence on a simple matter of fact as well as a sane man. He had had to dismiss attendants dozens of times without warning; and he had never yet been threatened with an action. He had always the feeling that most cases that deserved instant dismissal deserved reporting to the Fiscal. The proper course was to throw the onus upon the Fiscal.

Dr. RORIE had never experienced any difficulty in regard to this matter. He judged each case on its own merits. As the agreement is in the form of a legal obligation it must be signed in the presence of witnesses and stamped.



The meeting thereupon finally adjusted the "Declaration," which now stands as follows:—

I hereby promise to obey the Rules of the Institution, to faithfully execute the orders that may be given me by my Superior Officers, and to perform any duty assigned to me, although not of the kind for which I am chiefly engaged. I consider myself bound to promote the objects of the Institution, to do my best to further the recovery of the Patients, and to secure their comfort and safety. I also undertake not to bring into the Institution any intoxicating liquors; to be careful of its property; to avoid all gossip as to its inmates or affairs; and to endeavour generally, by my own conduct and demeanour, to sustain its reputation. If anything improper be done in my presence, or to my knowledge, I pledge myself to lose no time in reporting it to the Medical Superintendent or one of the Superior Officers. I understand my engagement to be monthly, and agree to give one calendar month's notice should I wish to leave my situation. I acknowledge the right of the Medical Superintendent to discharge me without warning for acts of harshness or violence to Patients, intemperance, immoral conduct, or disobedience to orders, upon such evidence or information as may seem to the Medical Superintendent to be sufficient.

Signed at.....this.....day of.....18.....

.....Witness,

(Occupation).....

(Address) .....

.....Witness,

(Occupation).....

(Address) .....

#### DELUSIONAL INSANITY.

Dr. KEAY reported a case of Delusional Insanity.

In answer to the President, Dr. KEAY mentioned that he had seen the patient—who was sixty years of age—within the last month. He had granted her a certificate of sanity for the discharge of the *Curator bonis*.

Dr. URQUHART—That is contrary to legal precedent. It has been held that such a certificate, bearing date from an asylum, ought not to be granted.\*

Dr. CLOUSTON—I have done it frequently.

The PRESIDENT—The asylum physician is the best of all judges surely. This is a most interesting case. I am bound to say that in my experience I have never seen complete recovery in such a case where the patient had been insane for nine years, and had been full of all kinds of suspicions and constantly manifested hallucinations of the senses. Such cases of all others are usually the most unfavourable as regards prognosis.

Dr. RORIE—The nearest approach to such a case I can recall was that of a female patient who believed that she had poisoned the water supply of Dundee.

The PRESIDENT—That was melancholia, although delusional. Melancholics may recover after any length of time, but this is something quite different.

Dr. CLOUSTON—It is a most striking case. The first observation that occurs to one is "Never give up hope." The symptoms here seem about the least hopeful that you can have. It is the fact that the patient had these delusions for so many years that makes the recovery so very exceptional. Might the illness not be owing to some lesion about the membranes? The case would be described by the Germans as *Paranoia*. The disorder was a slow evolution—it had not an acute beginning. To me the case is positively unique in its character; I cannot recall anything like it.

Dr. URQUHART—I mentioned two cases of deferred recovery in my annual report some years ago. One was a case of resistive melancholia and the other was a case of delusional insanity. The former is perfectly well after seven years' residence in the asylum, manages her household perfectly, and is regarded by her neighbours as being uncommonly shrewd. She recovered after hæmatoma auris. The other is reported to be quite well, but I fancy that certain peculiarities will always continue with her.

Dr. KEAY—In this case the patient did not become demented; but rather

\* Fraser, "Parent and Child," 2nd ed., p. 550. Simpson, 11 Jan., 1860, 22 D., 350.



very intelligent and communicative. The climacteric was over before I knew her.

#### SEXUAL PERVERSION.

Dr. URQUHART reported a case of Sexual Perversion. (See Clinical Cases, p. 94.)

Dr. IRELAND—As physicians we have to do with such perversions from time to time. I would not say that a man of this stamp was intellectually insane; but rather that he had a depraved taste. No sentiment is more firmly rooted in our nature than a partiality for the other sex and a comparative indifference towards our own. I confess I am at a loss to account for the perversion, unless it be that a boy with the face of a girl may to a being of this sort excite feelings which generally appear in young men for young women. They yield to this perverted taste, and in course of time women become distasteful to them. But it also exists in women. There are women who have depraved taste for women. It has been so down through the ages, if we are to trust to classical authorities. What is the Lesbian passion? Some of the finest odes of Sappho signalize this unnatural love.

Dr. URQUHART—The point is that this man will come out of prison in a year. What better will he be? Has society taken the best possible course for its protection? He would fain hope that a more scientific method of dealing with such criminals would yet be adopted.

Dr. CLOUSTON had never met a very clear case of this kind. We know that boys sometimes behave in effeminate ways and in this way they may be led to grosser forms of immorality.

#### THE PALATES OF THE INSANE.

Dr. CLOUSTON briefly described the results of his investigations in regard to the development of the hard palate. He said: We have been investigating in a large way the condition of the palate among (1) the general population; (2) such degenerate specimens as criminals and inhabitants of poorhouses; (3) the insane of different classes; and (4) congenital imbeciles and idiots. In order to provide a standard of comparison, and that observations may be made somewhat on the same lines in future, I have divided palates into three forms, which I think practically cover the ground. In the first, "the typical," there is a large flat dome over the mouth. Then we get the second, the "neurotic," vault much higher, and in some of those you have a tendency to "rabbit teeth;" in the third, the "deformed," the palate is of a "V" or saddle shape. The "deformed" palate exists in 19 per cent. of the general population. The "neurotic" prevails to a large extent among people of "neurotic diathesis." Going over all the idiots and congenital imbeciles in Larbert institution and those in Morningside, I find 61 per cent. of the whole "deformed." Taking criminals, I find that 35 per cent. of those are deformed. Among the insane generally there is 33 per cent. deformed. In the insanities of adolescence and puberty the patients have deformed palates to the extent of 55 per cent., so that this class approaches almost the imbecile in regard to this peculiar deformity. Of course there are various other deformities. The importance of the palate shape depends upon the relation of the palate to the base of the skull. There are two theories that occur to one: (1) take the anterior part of the brain as representing the more mental part, imagine that to be contracted in its width right above the palate; and supposing that the palate was not contracted similarly, but remaining the same in actual length, then it must assume a "V" shape from the contraction of the space it bridges over. Supposing, second, you have a tendency to a lower animal reversion of the lines of the teeth of the upper jaw—in the typical case they are somewhat circular—supposing you have these brought together at the back row to produce the lines of teeth in the jaws of the ordinary lower animals, like the monkey, then you can imagine the palate being pushed upwards, through this process of reversion, into a "V" shape.

## CENSUS OF THE IMBECILE.

At the Scotch Quarterly Meeting of the Association, held at Glasgow, reference was made to an application forwarded to the Office of the Secretary for Scotland, suggesting the advisability of distinguishing between the classes "lunatic" and "imbecile" in the next census.

The following satisfactory reply, addressed to the President, Dr. Yellowlees, was received :—

Office of the Secretary for Scotland,  
Whitehall, S.W.,  
12th November, 1890.

SIR,—With reference to your letter of the 1st September last, I am directed by the Marquess of Lothian to acquaint you that the suggestion of the Medico-Psychological Society as to the advisability of distinguishing between the classes "lunatic" and "imbecile" in the census of 1891 has received careful consideration, with the result that the column in the Householders' Schedule has been amended to read as follows :—

II.
<p>If (1). Deaf and Dumb.          (2). Blind.          (3). Imbecile or Idiot.          (4). Lunatic.</p>
<p>Write the precise infirmity, if any, opposite the name of the person, and if the infirmity dates from childhood, add "from childhood."          Do not use such a general term as "afflicted" or "infirm."</p>

I am to add that the Secretary for Scotland trusts that the object aimed at by the Society will be attained by this alteration.

I am, Sir,  
Your obedient Servant,  
R. W. COCHRAN PATRICK.

D. Yellowlees, Esq., M.D., LL.D.,  
Superintendent Royal Asylum,  
Gartnavel, Glasgow.

At the Council Meeting, held in London November 20th, 1890, the subject was brought forward by the President, and it was agreed that he should make a similar request to the Registrar-General in regard to the census for England and Wales. This letter elicited a courteous reply, in which the information was conveyed by the Secretary, Mr. Noel Humphreys, that "in the Householder's Schedule to be used at the approaching census in England and Wales, in April next, the heading adopted for the column relating to the deaf and dumb, the blind, and the lunatic, imbecile and idiot, is in precise accord with that which has been adopted in the Scotch Schedule, which the Registrar-General is glad to learn meets the views of your Association."

We understand that the distinction has already been adopted in the census for Ireland.

[Since above was in type, the subject has been reconsidered by the English and Scotch offices, and "Lunatic, Imbecile or Idiot" will be printed together, but the foot note will remain.]

## AN ASYLUM PHYSICIAN SHOT DEAD BY A LUNATIC.

It is with great regret that we have to record the homicide of Dr. George F. Lloyd, the Assistant Superintendent of the King's County Asylum, Flatbush, Long Island (U.S.A.).

It appears that\* James M. Dougherty was admitted to the Flatbush Asylum in November, 1888. In August, 1889, he escaped, and threatened to strike the

\* We are indebted to the courtesy of the Editor of the "American Journal of Insanity" for the account of this melancholy event, as sent to him by Dr. Fleming, of the Flatbush Asylum, N.Y.

attendants with a shovel when they pursued him. Dr. Fleming, the Superintendent of the Institution, states that, when he took charge on October 1st, 1889, he found him a quiet patient, although he complained of the diet. He laboured under visual and auditory hallucinations, and had delusions of persecutions. He again escaped September 16th, 1890. On the 26th, that is ten days after his escape, he walked into the asylum, revolver in hand, and demanded his property. Dr. Fleming was in the office alone. Dr. Lloyd, at this juncture, entered the room, and Dr. Fleming requested him to get Dougherty his property, which he did. He was then asked to sign a receipt for it, upon which he laid his cane on the desk, transferred his revolver to the left hand, and signed. It was thought by the medical officers that he brought the revolver to prevent his being retaken, but he was informed that his name had been removed from the books. Dr. Fleming heard nothing more of him until October 9th, when he was told he had been seen in New York two days before, and that he behaved in a surly manner. On the same day, Dr. Fleming was informed that the patient had returned to the asylum, and almost immediately afterwards two shots were heard, followed by the sound of hurrying steps. On entering the office from which the sound proceeded, Dr. Lloyd was found on his side by the desk, and the blood pouring from his body. The patient was seen walking rapidly to the gate. He was subsequently given in charge at the police-station and locked up. On examining Dr. Lloyd, it was found that one ball had gone through the heart and the other into the throat.

Dr. Lloyd was only 29, and had been appointed to the post which he held July 1st, 1890. Dr. Fleming writes: "He was a loyal friend, a competent and painstaking official, and had a peculiar faculty of gaining the love and respect of all who came in contact with him—even those who had met him but once or twice had mentioned that quality. His taking away is deeply deplored, especially by his associates and personal friends."

We join in the sympathy expressed by the "*American Journal of Insanity*" for the mother who survives, and whose grief has been intensified by the death of a daughter from diphtheria twelve days afterwards.

---

### Correspondence.

#### MOSCOW ASYLUM.

We have received a communication from Dr. Korsakoff, Private Docent of Psychiatry in the University of Moscow, drawing attention to what he regards as inexact statements made by Dr. Robert Jones in his report on the Lunatic Asylum of Moscow, published in this Journal, April, 1890. Dr. Jones stated that mechanical restraint was rare. Although Dr. Korsakoff does not belong to the administration of the institution, he delivers a course of clinical lectures, as "private docent," and consequently considers that he knows perfectly well that this and other statements are incorrect. In proof of this he encloses a letter, describing the clinique in the asylum, written by the Superintendent, Professor Kojewnikoff. It is as follows:—

*Refutation of Dr. Robert Jones's article, "Russian Retrospect," referring to the Moscow Clinic for Mental Diseases.*

GENTLEMEN,—I consider it my duty to state that the account of the Moscow Clinic for Mental Diseases, given by Dr. Robert Jones, and published in this Journal in April, 1890, page 295, is incorrect in many respects. In the month of August, 1889, Dr. R. Jones stopped at our Clinic for less than half an hour, so he could not become acquainted with its organization. Without entering into the details and the tone of his description, I will merely point out the chief errors in his article.



Dr. R. Jones says that our University Clinic "is the acute asylum for Moscow;" this is a mistake, as our Clinic is exclusively a clinical establishment designed for the purpose of lecturing on mental diseases. Therefore, in summer, during the vacation, when there are no lectures, patients are not admitted into the Clinic, and only those remain whom it would be inconvenient to discharge. There is accommodation at our Clinic for 50 inmates—30 males and 20 females; during lecturing time the number of patients is complete. In August, 1889, there were 19 inmates—eight men and 11 women.

In describing our Clinic Dr. R. Jones says: "The doors are very substantially made and the fittings good. They might be hammered and beaten all night without much noise. The padded-rooms are lined with thick, well-tanned hide—leather being comparatively cheap in Russia." The doors are padded only in the single rooms, occupied by violent patients; the other apartments have ordinary doors. As to rooms lined with hide or padded-rooms there are none. Dr. R. Jones goes on to say: "Mechanical restraint is rare, more so than in French and Italian asylums for similar patients. The strait-waistcoat is the method employed." Our Clinic has been in existence for nearly three years, during which time the strait-waistcoat has not been once employed, and in general no mechanical restraints are ever applied. Further Dr. R. Jones says: "Tin plates for dinners, tin pannikins, and much slovenliness might be remedied. The meals I considered execrably served." At the time of Dr. Jones's visit at our Clinic the patients were not having a meal, therefore he could not see how such are served. At our Clinic crockeryware is in general use, but for violent patients there are enamelled iron dishes and plates. Then Dr. R. Jones proceeds to say: "There are no books or newspapers to wile away the terribly long and weary hours." At our Clinic for Mental Diseases three newspapers and nine magazines are taken; there is a library increasing by degrees, and which at the present time numbers 443 books for the use of the inmates. Besides various games out of doors and indoors our patients amuse themselves with reading, music (there are two pianos), drawing, bookbinding, the women with needlework, knitting, embroidery, and similar work, men as well as women with gardening, so that our patients are occupied as much as possible. As for gardens, our Clinic is in possession of a park of almost eight English acres; it is divided in two, one half for men, the other for women; each half is again divided into three parts, the larger of which is set apart for quiet patients, the other of smaller dimension for troublesome ones, and finally a small part, surrounded by walls, for violent ones. All these grounds are exclusively for the enjoyment of the inmates, consequently Dr. R. Jones's statement cannot refer to our Clinic in any way, when he says: "It is probable, as in the University Clinic of Berlin, that other patients, not affected mentally, use the more extensive grounds, the poor lunatics being hemmed into a pen." He then goes on: "I did not see any female patients and, if I remember rightly, I do not think there were any." When Dr. Jones visited our Clinic, there were 11 women there; perhaps he did not see them, as at that time they were in the garden, where he did not go. He then proceeds: "Fortunately for the inmates, there were far more vacancies than inmates. I was informed that there was accommodation for 98 males and 88 females, total 186." As mentioned before, at our Clinic there is accommodation for 50 patients. Dr. Jones goes on: "No suicides have occurred, but the normal mortality is high." In the years 1888 and 1889 the number of patients admitted into our Clinic amounted to 150; of these 10 died. It must be remarked that for scientific purposes very frequently the most serious cases have to be admitted, which rapidly end fatally.

I will not allude to any other particulars, containing many errors. I suppose those I pointed out will be sufficient to prove that Dr. Jones's account of our Clinic is very superficial and does not agree with the real state of things.

PROF. AL. KOJEWNIKOFF,  
Director Clinic for Mental Diseases of Moscow.

Moscow, Oct. 16th, 1890.



Dr. Robert Jones has availed himself of the opportunity we have afforded him to reply to it.

GENTLEMEN,—I beg to express my thanks for your courtesy in affording me the opportunity of replying to Dr. Kojewnikoff simultaneously with the appearance of his protest.

To be able to write a commendatory description of such an institution as the Moscow Clinic, without interposing epithets of abhorrence in due proportion, would either betoken ignorance and inexperience or the possession of intellectual distinctions and contradictory virtues of a very peculiar order.

I have every reason to remember my visit to the Clinic, for it was the afternoon of a long day spent with the insane. I had reached the Slavyanski early that morning from Nijni Novgorod, and commenced by inspecting the new buildings for hospitals in the southern section of the city. Thence I went to the hospital Moquelevitch, where, as described in my impressions, "I spent most of the day with the officers and patients, going over the whole of the asylum according to the plan and photographs before us." After inspecting this hospital (the St. Andrew's of Russia) I paid my visit to the University Clinic, Dr. Moquelevitch accompanying me, the contrast between the two striking us both very forcibly. Dr. Kojewnikoff refers to my visit as being of less than half-an-hour in duration. I need hardly say that the professor was absent on vacation, and whatever he may have heard subsequent to my visit must have been secondhand. An interval longer than that attributed to the whole of our inspection was probably passed in waiting for the pleasure of his deputy (Dr. Korsakoff, the private-docent, a most courteous and able specialist) to take us round, when we saw as much of the establishment—a new, ugly-looking, barrack-like building of two storeys—as the management chose to show us, including about 10 male patients out of a complement of 30, being those probably whom the learned professor "considered inconvenient to discharge," and who gave the tone of a decidedly *acute* asylum to the Clinic.

I will now take the professor's refutations *seriatim*, and, although our references to the same thing appear to be somewhat contradictory, it is that the one describes through Russian spectacles and the other by the light of British experience. The professor states: "The doors are padded only in the single rooms occupied by violent patients." My contention is that these lined rooms answer every purpose of a padded room. Moreover I will concede that this leather lining is infinitely superior to our rubber or painted canvas. The refutation continues: "The strait-waistcoat has not been once employed and *in general* (italics mine) no mechanical restraints are ever applied." My description states that mechanical restraint was rare, appearing thus to tally with the professor's own words, but surely these verbal quibbles are beside the mark, and I fear that the spirit of restraint still lingers if the letter be in abeyance, and my own observations at the time, in the case of a noisy, maniacal, male patient, struggling near two or three attendants, convinced me of its existence, for he was dressed in exceedingly rough canvas-like material, having every appearance of a *camisole de force*. Considering other things, I am not surprised that, euphemistically, this is recognized not as a "strait-waistcoat," but whatever other term may be applied makes it none the less reproachful and objectionable. Again, during my visit some refreshments—whether a meal or not I cannot state—were being served, the attendants and patients apparently partaking. In the absence of Dr. Kojewnikoff this may have been irregular, and his authority may not recognize its occurrence, but the metal ware was certainly to the fore, and I am amused to find that, being enamelled iron dishes and plates, they are so far superior to tin. In my opinion nothing could be coarser or more slovenly and less conducive to foster self-respect. The three (!) newspapers and nine magazines, apparently omitted during my visit, may be explained not improbably by the fact that vacation time had unfavourably affected the circulation of literature for that class of the insane "whom it was considered inconvenient to discharge," and a knowledge of human

nature might suggest that the attendants would presumably derive more recreation and amusement from their perusal.

In my report a matter of far greater importance than the trivial details referred to is allowed to pass unchallenged, and will bear its own interpretation and reflection upon the management, viz., "a want of homeliness and domesticity, very little furniture, except tables, benches, and beds, no pictures in the wards, no variation in the colour of the rooms" (not even stencils). With regard to the description of the grounds, I must complain that sections have been extracted from my article and separated from the context, so as to (unwittingly, perhaps) distort my meaning. Describing the male side I wrote: "The airing courts are cramped and small, a high wooden hoarding shuts you round, and no glimpse is got of the outer world. A larger airing court beyond this, I believe, is used for some patients, and a still larger one with gardens beyond is, apparently for three classes of patients, but they were unoccupied during my visit." The latter evidently owing to their being in their wards, for my statement proceeds: "On a summer afternoon, pleasantly warm out of doors, all the patients (males) were indoors. Such a state of things would hardly be the case in England." The professor quotes me: "I was informed that there was accommodation for 98 males, 88 females, total 186." These numbers I got from Dr. Korsakoff, and were taken down in his pathological laboratory; they evidently refer to the total number under treatment since the opening, which the professor states was about 150, and if he refers to my opening remarks he will find that I quote the University Clinic as having about 50 patients, the number he himself sets down as the limit of their accommodation.

Either a lunatic hospital is for promoting the cure of mental affliction or it is not, and if not there can be no further justification for its existence. The fact, to quote the professor's own words, of importing "very frequently the most serious cases for scientific purposes, which rapidly end fatally," is barbarous, and does not commend itself as humane or justifiable. It would not be tolerated outside Russia.

I considered, and do so still, with a very vivid recollection of the Clinic and having a fair average acquaintance with home and Continental asylums, that there can be no justification for the existence of an institution having such magnificent pretensions and so little performance. There appeared to me a supineness in the management which pointed to a deplorable administration, and I conclude by reiterating my previous description, that "if ever surroundings influence a mental condition, detention for treatment in such an asylum ought to render a victim hopelessly incurable."

I regret, gentlemen, that in the warmth of controversy, I should appear to use harsh expressions; but they are certainly not with a desire or design to affront the learned professor, whom it was my misfortune not to meet.

I have the honour to remain,

Your obedient servant,

ROBERT JONES, M.D. Lond., B.S., F.R.C.S.

Earlswood, Surrey.

#### RATING OF ASYLUMS (LUNACY ACT, 1890).

GENTLEMEN,—Section 263 of the Consolidation Act, 53 Victoria, Chapter V., appears to have given as much trouble to the officials of the pauper asylums throughout England as other portions of that over-carped-at statute have to the authorities of some of the institutions for the reception of private patients. Without going into the entire matter of the rating of asylums, it may perhaps be of interest to many readers of the Journal, who have to consider this subject, if the result of a recent inquiry into one very small, though not unimportant, corner of it, is placed briefly before them. The question asked was to this effect: To which account (building and repairs or maintenance) do you propose to charge the rate levied under the new rating section in the Lunacy Act?

## Notes and News.

fifty-four post-cards were sent out; and thanks to the prompt courtesy of the superintendents addressed, fifty-four answers were received. In fifteen asylums it has been decided to charge the entire amount to the maintenance account; fifteen to the building and repairs; four charge the maintenance with that portion of the rate paid on the land, and the balance to the building and repairs account; one charges this latter with everything except the poor rate; while the counties have not yet settled the question in any way. One gentleman writes: "We are all puzzled as to the construction of the Act." A second says: "As far as I can see there is no choice at all—the new assessment should certainly be charged to maintenance." Another, however, is equally emphatic: "To the building and repairs. Certainly *not* the maintenance;" while a fourth very pertinently draws attention to the fact that, in the form of abstract of account recently issued by the Local Government Board, "there is a place for rates in building account, but none in the maintenance." It is clear that considerable difference of opinion exists on this point at present. Probably much of it will be reconciled when the new auditors have made their report to headquarters. Uniformity, though not always desirable, would, in this instance, be an advantage, especially if it took the shape of insisting upon the amount being paid out of the county rate, and not out of the monies chargeable with the maintenance and care of our patients.

Yours, etc.,

J. BEVERIDGE SPENCE.

---

## Appointments.

BLACK, R. S., M.A., M.B., C.M., D.P.H.Aberd., appointed Pathologist and Assistant Medical Officer to the Lancashire County Asylum, Whittingham.

BONNEY, A. W., M.R.C.S., L.S.A.Lond., appointed third Assistant Medical Officer to the Worcester County and City Asylum.

BOYCOTT, A. N., M.R.C.S., L.R.C.P.Lond., appointed third Assistant Medical Officer to the Cane Hill Asylum.

COMPTON, THOS. J., M.B., C.M., appointed Resident Medical Superintendent, Higham Hall Asylum, Norwich.

COWAN, JOHN J., M.B.Ed., appointed Assistant Medical Officer to the Roxburgh District Asylum, Melrose.

CRAIG, F. A., M.B., B.Ch., Roy. Univ. Irel., appointed Resident Clinical Assistant to the Nottingham Borough Asylum.

DUNN, E. L., M.B., B.Ch., T.C.D., appointed fourth Assistant Medical Officer to the West Riding Asylum, Wakefield.

FARQUHARSON, A. C., M.B., C.M., appointed Assistant Medical Officer to the Burntwood Asylum, Lichfield.

FITZGIBBON, H., M.D.Dub., F.R.C.S.I., appointed Medical Visitor of Lunatics.

HAY, FRANK, M.B., C.M.Aberd., appointed Assistant Medical Officer to the James Murray Royal Asylum, Perth.

LYONS, ALGERNON WILSON, M.B.Lond., L.R.C.P.Lond., M.R.C.S.Eng., of King's College, London, appointed Resident Clinical Assistant at the City of London Lunatic Asylum, Stone, near Dartford.

MACKENZIE, HENRY J., M.B., C.M.Edin., appointed Resident Clinical Assistant at the Darenth Asylum for Imbecile Children, Dartford.

MIDDLEMAN, JAS., M.B., C.M., B.Sc., appointed Resident Pathologist to the Morningside Asylum.

ROUSE, EUSEBIUS ROUSE, M.R.C.S., L.R.C.P.Lond., L.S.A., appointed Assistant Medical Officer to Camberwell House Asylum, London.

TANNER, C. PRICE, M.R.C.S., L.R.C.P.Lond., promoted to be second Medical Officer to the Worcester County and City Asylum.

WATSON, W. R. K., M.A., M.B., C.M., appointed Assistant Medical Officer to the Lancashire County Asylum, Rainhill.



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# THE JOURNAL OF MENTAL SCIENCE

*(Published by Authority of the Medico-Psychological Association  
of Great Britain and Ireland).*

EDITED BY

D. HACK TUKE, M.D.,  
GEO. H. SAVAGE, M.D.

“Nos vero intellectum longius a rebus non abstrahimus quam ut rerum imagines et  
radii (ut in sensu fit) coire possint.”

FRANCIS BACON, *Proleg. Instaurat. Mag.*

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JULY, 1891.

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MDCCCXCI.

*To be continued Quarterly.*



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## *The Journal of Mental Science.*

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### PART 1.—ORIGINAL ARTICLES.

*Prichard and Symonds, in especial Relation to Mental Science.*  
By D. HACK TUKE, F.R.C.P.\*

I hope that you will agree with me that it is well to seize the occasion of our meeting in this locality to recall the memory of two remarkable physicians who practised for many years in Bristol—one, Dr. Prichard, who distinguished himself not only as an ethnologist, but as the author of by far the best English work on insanity in his generation, who was the most celebrated Medical Commissioner that ever sat at the Lunacy Board, and who produced a profound sensation in the legal and the psychological world by enunciating the doctrine of so-called “Moral Insanity,” the echoes of which have not yet died away, nor are likely to do so as long as crimes are committed, and the question of human responsibility has to be determined. The other, who will be ever remembered by those who knew him as the beloved physician, the late John Addington Symonds, the friend of Prichard, and one who, although not an alienist, felt a keen interest in, and had a great capacity for psychological research, having written several Essays, quite remarkable for their insight into some of those problems in psychology which we are yet far from having solved, and which we discuss with some heat even at the present moment.

Both Prichard and Symonds were representative men—examples of all that is noblest and best in the traditions of the medical art; men whose lives, absolutely free as they were from “the leaven of malice and wickedness,” tend to raise us above the petty jealousies and misunderstandings which too often intrude upon our professional life. They

\* Paper read at the Quarterly Meeting of the Medico-Psychological Association, held at Brislington House, Bristol, May 1, 1891.



differed, certainly, in some of their mental characteristics. Their tastes in the direction of poetry and art were not equally strong; their facility of speech differed, I believe, considerably; and Symonds did not suffer from the shyness which friends of Prichard tell me characterized him. But they were essentially alike in the true modesty of their natures, in their stainless honour, in their refinement, and in the union of intellectual endowments with sweetness of disposition.

If I do not restrict myself to their scientific work, it is because I thought you would be interested not only in Prichard's and Symonds' views of psychology, but also in the psychology of Prichard and Symonds themselves, as they lived and moved and had their being in this neighbourhood, and conferred renown upon it, not solely by their brilliant careers, but by their characters as men. I would add that although Bristol may justly claim them as her adopted citizens, their name and fame are the heritage of the medical profession.

Had time permitted, I should have given some account of Dr. Carpenter, who was not only a noted physiologist, but occupied an important position in the special domain of mental physiology, and must always be remembered in connection with Bristol; for although born in Exeter he was only four years of age when his parents removed to this city. His first work in the direction of psychology dates as far back as the year 1837, when he wrote a paper on the "Voluntary and Instinctive Actions of Living Beings." With his name has been associated the phrase "unconscious cerebration," and although, I think, it must be admitted that in the regrettable contention for priority which occurred between Dr. Carpenter and Professor Laycock, the latter's claims were well founded, Dr. Carpenter's exposition of mental automatism was able, and on the whole formed a valuable contribution to psychology. It was in 1874 he published his "Principles of Mental Physiology," which covers an area of mental science too much neglected and of great importance. Even so far back as 1853 he embodied in his "Human Physiology" the phenomena of hypnotism, having become convinced of their reality and interest from witnessing the experiments of Braid. But I must resist the temptation to set forth Dr. Carpenter's position in relation to mental science. So much I have thought it incumbent upon me to say in reference to a

remarkable man, whose unremitting industry and careful study of nature are worthy of our imitation, carried on as they were to the time when a painful accident, which excited universal sympathy, terminated an honourable career.

Born in 1786 at Ross, in Herefordshire, James Cowles Prichard was never sent to school, but was educated at home, and acquired a knowledge of French, Italian, and Spanish. His father was at one time residing at Bristol, and young Prichard occupied himself "in finding out and examining the specimens of the natives of different countries who were to be found amongst the shipping of this port. His familiarity with Spanish and modern Greek was in part attributable to this cause" (Hodgkin).

After his studies under private tutors were completed he commenced the study of medicine in this city in 1802.

Subsequently he continued his medical studies at St. Thomas's Hospital. In 1806 he went to Edinburgh, and even when a student in that University he formed definite opinions in regard to the varieties of the human race. One of his fellow-students has stated that in their daily walks "this subject was always uppermost. A shade of complexion, a singularity of physiognomy, a peculiarity of form, would always introduce the one absorbing subject. In the crowd and in solitude it was ever present with him."

After he had taken his degree in Edinburgh, Dr. Prichard resided a year at Trinity College, Cambridge. It was in 1810 that he commenced practice in Bristol. He, however, found time for his anthropological researches, and brought out his work on the "Physical History of Man" in 1813. As is well known, he opposed the opinion that the blackness of the negro was due to the action of the sun through a long period of time, and maintained on the contrary that our first parents were black, the white varieties of the human species being the result of civilization. As Dr. Hodgkin observes, "he related many curious facts, collected from several parts of the globe, in support of this bold and ingenious theory, the announcement of which excited both surprise and interest."

It affords me sincere pleasure to be able in this connection to read a letter from my friend Dr. E. B. Tylor, Professor of Anthropology at Oxford, in which he replies to my inquiry as to the position held by Prichard in the estimation of ethnologists at the present day.

He writes:—"It is always a satisfaction to find that Dr. Prichard's reputation does not die out, but rather grows with

time. As an anthropologist his work is admirable, and it is curious to notice how nowadays the doctrine of development rehabilitates his discussion of the races of man as varieties of one species. We may even hear more of his theory that the originally dark-complexioned human race produced, under the influences of civilized life, the white man. I have wondered that Prichard's merit as the philologist who first proved the position of the Keltic languages as a branch of the Indo-European, is so often left unnoticed. Adolphe Pictet made his reputation by a treatise on the same point, which was received with applause, no one seeming to know that Prichard had done it before."

It is important to bear in mind what Dr. Hodgkin points out, that had Prichard written nothing on ethnology he would have been a distinguished physician. "He established a dispensary. He became physician to some of the principal medical institutions of Bristol. He had not only a large practice in his own neighbourhood, but was often called to distant consultations. Notwithstanding the engrossing nature of these occupations, he found time to prepare and deliver lectures on physiology and medicine, wrote an essay on fever, and one on epilepsy, and subsequently a larger work on nervous diseases." In view of the distinguished position occupied by Dr. Prichard in our own special branch of medicine, the question arises, How did he obtain his knowledge? He himself tells us in the preface to his "*Treatise on Nervous Diseases*," published in 1822, that his work owed its existence to his having held, during ten years, the appointment of physician to St. Peter's Hospital, where a great proportion of the cases brought under his observation belonged to the class of mental diseases. "Here," he says, "a variety of phenomena presented themselves, from time to time, to my notice which have appeared to throw light on some practical indication. It is now several years since the idea first occurred to me that by publishing a selection from those cases which have seemed worthy of record, I might be enabled to make some addition to the general stock of knowledge respecting the interesting and obscure class of disorders to which they belong; and in this hope I have been in some measure confirmed as I have proceeded, by observing that the examples of disease which continued to present themselves seemed in general to coincide with certain pathological distinctions which I had been led to adopt."



He goes on to say that he suspected that disorders of the nervous system are often symptoms of some latent disease in another part of the constitution. He adds:—"Some of the diseases of which I purpose to treat are commonly regarded, at least in cases of long duration, as almost incurable by any efforts of human art . . . yet numerous instances occur in which Nature, in some period or other of life, effects a cure. The diseases are found to cease in consequence of some spontaneous change which takes place in the state of the constitution. If medical practitioners, instead of hunting after specific remedies, carefully directed their attention to trace the method by which these natural terminations are brought about, or to ascertain the process of those constitutional alterations, in consequence of which the diseases alluded to disappear, it is probable that they might be enabled, in some instances, to imitate the salutary operations of Nature." The author says of his book that if he did not imagine it to contain something more than is universally known on the subject, he should not have had the presumption to offer it to the public.

In the words of Dr. Symonds this appointment to St. Peter's Hospital was "more memorable than any other that he subsequently held, because this institution contained a class of patients whose maladies gave an impulse to his prosecution of a particular department of pathology with which his name will ever be associated."\* We may well judge of the remarkable mental capacity which he possessed, when we consider that he has left his mark in two vast departments of knowledge—psychological medicine and ethnology. Had he left either of these departments untouched, he would still have gained the highest point in the one to which he had confined himself.

It is very striking to find Dr. Prichard in this, the first work he published which treats of mental disease, taking a position diametrically opposite to those views of which he subsequently became the able exponent. He quotes a case reported by Dr. Gall, in which a "disorder of the propensities" followed an injury to the head caused by a fall from the fourth storey of a house, only to smile at the absurdity of such a statement, adding that if such reports gained credit "the College of Surgeons may expect one day to march in triumph and take possession of the vacant seats of the

\* "Miscellanies by Dr. J. A. Symonds," edited by his Son, p. 117.



criminal judges; and we shall proceed forthwith to apply the trepan, where now the halter and the gibbet are thought more applicable" (p. 35).

Further, he observes in another part of the same work:—"I have scarcely seen any instances of alteration in the temper and affections which did not bear a pretty exact proportion to the *irritamenta* that were connected with it, or which, in cases bordering on lunacy, were not dependent on some latent hallucination or false impression. If this explanation can be admitted in all instances where the affections appear to be perverted, it will follow that we have no decided instances of original disorder in this part of the mental constitution; and the argument which has been drawn in proof of the intimate connection of the mental processes with organic operations in the nervous system must, as far as it relates to this class of phenomena, be abandoned."

From other passages of this treatise it is obvious that Prichard was at that time imbued with the old-fashioned notion that while the physical organs might be closely connected with intellectual acts, as memory and thought, it was altogether out of the question to say the same of our feelings and moral sentiments. What must have been the cogency of facts, on the one hand, and the candour of Prichard on the other, to lead him, after thirteen years' more experience, to maintain that the temper and disposition have been known to undergo a change in consequence of, or immediately after, some severe shock to the bodily constitution—a disorder affecting the head, or a slight attack of paralysis. ("Treatise on Insanity and other Disorders affecting the Mind," 1835, p. 13.)

I have already said that he wrote the best work on insanity in his day. This was the treatise now quoted from, which had its foundation in an article in the "Cyclopædia of Practical Medicine."

We have then a period of three-and-twenty years during which Dr. Prichard devoted himself with ardour to the clinical study of insanity. I venture to think that the amount of knowledge gained and the intelligent use made of that knowledge during this period, were of infinitely greater value than that which would have accrued from the study pursued during double the period by many other men. I should like to know how many of the medical superintendents of asylums who have had the same or longer

experience could have produced a standard work on mental diseases equal to that which Dr. Prichard did actually produce.

There was only one writer on insanity at that period from whom he could obtain help on a considerable scale. That writer was Esquirol, but there is this striking fact that he himself writes a letter to Prichard acknowledging how much, in one department at least, he had been enlightened by him; and again he declares in his great work on *Mental Maladies*, as we shall see directly, that he is indebted to Prichard for clinical information and original conclusions. So that we have this remarkable testimony to the knowledge and sagacity of the English physician from a man whose field of observation in the Paris Asylums was second to none in the world. Esquirol's work did not appear till 1838.

Prichard also wrote articles on delirium, hypochondriasis, somnambulism, animal magnetism, soundness of mind, and temperament.

"I shall never forget the satisfaction," writes Dr. Symonds, "which I derived from the study of the article 'Insanity,' in the '*Cyclopædia*.' The light which I then derived from it has repeatedly been a help and a guide to me in the investigation of cases of derangement in which no lesion of judgment was discoverable."

I hold in my hand a letter from Dr. Prichard to my father, dated Bristol, July 22nd, 1834, in which, after referring to the preparation for publication on a larger scale of his treatise on insanity in the "*Cyclopædia*," he proceeds:—"I am desirous of knowing whether you have observed (at the York Retreat) any cases of moral insanity. By that term I distinguish the mental state of persons who betray no lesion of understanding, or want of the power of reasoning and conversing correctly upon any subject whatever, and whose disease consists in a perverted state of the feelings, temper, inclinations, habits, and conduct. Such individuals are sometimes unusually excited and boisterous; at others dejected (without any hallucinations), sometimes misanthropic or morose."

Here, as you see, is laid down in the fewest possible words the proposition which is associated with Dr. Prichard's name, although shadowed forth by a previously expressed opinion of Pinel in regard to one particular form of emotional disorder; as also by the celebrated Dr. Rush, of Philadelphia.

Most modest of men, Prichard, however, distinctly claims

to have been the one who "first recognized and described moral insanity."\*

Recently a medical writer, in opposing this doctrine, cited Esquirol in his support, but he quite forgot to add that he subsequently, after more extended experience, gave his assent to it in an unqualified manner. I thought every alienist knew this, but as such is clearly not the case I must quote the paragraph. Bear in mind, if you please, that it was published three years after Prichard's book appeared, and is therefore a striking homage to the Bristol physician's thesis. After describing four cases, he continues thus:—"These are borrowed from the work of Dr. Prichard, who reports them as examples of moral insanity. This learned *confrère*, who published in 1822 a very good work on the 'Diseases of the Nervous System,' has since then enriched science with the most complete work we possess on mental disorders. This able physician, by a series of very interesting observations, has described the symptoms of this variety of partial insanity in which the character, the habits, the affections of the patients undergo a change without disorder of the intelligence. Dr. Prichard has not, perhaps, sufficiently distinguished moral insanity from another variety of insanity, which exists [not only] without intellectual disorder, [but] without disorder of the affections, which Pinel has called *manie sans délire*." ("Des Maladies Mentales," 1838, Vol. ii., p. 63.)†

"But does there really exist a mania," asks Esquirol, "in which patients who labour under it preserve their reason intact, whilst they abandon themselves to the most condemnable actions? Is there a pathological state in which man is irresistibly impelled to commit an act which his conscience condemns? I do not believe it." This denial of moral insanity has been largely quoted by readers who have not taken the trouble to read further, or they would have seen his recantation, in which he says that such was his opinion in 1818, when he wrote his article "*Manie Homicide*," in the "*Dictionnaire des Sciences Médicales*," but since that time he has observed cases of *manie sans délire*.

\* "A System of Practical Medicine," Vol. ii., 110.

† There appears to be some confusion in Esquirol's observations upon Pinel's *manie sans délire* or *raisonnante*. In the above passage he speaks of there being no disorder of the affections; and he also records (p. 70) a case in which there was no disorder of the reason and the affections, and yet at p. 71 he gives the symptoms of *manie raisonnante* as "the change—the perversion—of the habits, the character, and the affections."

"I have," he adds, "been obliged to submit to the authority of facts" (p. 98). Time will not allow of my following Esquirol in his further remarks, most instructive as they are.

Since the time of Esquirol a large number of distinguished alienists, in our own country and abroad, have ranged themselves on the side of moral insanity. Though he did not live to see it, Prichard has had his triumph.

It must be admitted that the Doctor laid himself open to criticism by narrating some illustrative cases which scarcely bore the construction which he put upon them. It must also be admitted that the doctrine may be abused in the interests of criminals. But when all is said that can fairly be urged against moral insanity, it remains a clinical fact, however rare, that there are certain persons who are insane and unaccountable, but in whom there is no disorder of the intellectual faculties which can be regarded as sufficiently marked to establish the fact of insanity or imbecility in the eye of the law.

For the recognition of this truth, we ought to acknowledge our obligation to Dr. Prichard, and meeting as we do to-day near the scene of his thoughtful observation of mental disorders, it is fitting that we should publicly express the debt under which we lie to him.

At no period since Prichard wrote has the question which he raised assumed more importance than at the present time, when criminality has been studied with unprecedented attention by the Italian school of which Lombroso is the representative. In this study and in the warm debates which have taken place the subject which had so much fascination for Prichard has necessarily come to the front and been keenly discussed—not always wisely. But what I wish to emphasize is the fresh interest which has been excited in regard to a class of persons whose moral nature is blunted by disease or defective at birth, and the endeavour which has been made—one which would have so greatly attracted Prichard—to ascertain what, if any, are the physical accompaniments and signs of this abnormal state. The result has been that the doctrine of Prichard has been in its essence adopted, and has indeed been more strongly emphasized in regard to congenital moral defects which Prichard recognized, but could not work out at so early a period of the study of moral disease. It is held that in addition to acquired moral insanity, there is an organization which may with reason be



styled congenitally criminal. Certain it is that although it would in my opinion be untrue to regard the great mass of the inmates of our prisons as stamped with stigmata which point to their having been cast in the same mould, we are more and more recognizing the fact that certain organizations are from the cradle devoid of ordinary moral sense, and have proclivities to motiveless cruelty, along with such a measure of intelligence as would in the eye of the law be deemed amply sufficient to carry with it responsibility. I ask your especial attention to the manner in which I have worded this clause. He who denies moral imbecility or insanity may show that the intelligence is not of a high order, but he is bound for all practical purposes to show much more than this. Can he prove inability to understand what is taught in an elementary school? Can he demonstrate that there is loss of memory greater than what thousands of people suffer from, whom no one dreams of calling imbeciles or lunatics? Can he detect hallucinations or delusions? If he can, then, of course, the case is taken out of the region of moral insanity. I assume that he can do none of these things, and I say that if he cannot, and if along with this state of the intellect, there is a hopelessly obtuse moral sense or an impulse to commit cruel acts to children and animals, which can be fairly regarded as the result of congenital defect or acquired disease, the condition meets the requirements of Prichard's moral insanity: that is to say, it is not the defective state of the intelligence which attracts observation to the individual, but the abnormal conduct, the insane emotions, which so arrest attention, that it is absolutely necessary to defend society from the results, and to either punish the culprit or to place him in an asylum. Prichard's sagacity laid, it may be said, the foundation stone of modern criminal anthropology. Morel added a most important superstructure of facts as to moral no less than intellectual degeneration. Those who are now taking the lead in raising this building to a greater height deserve respect, so long, at least, as their conclusions are grounded on and restricted by scientific observation.

Now, is the position taken by Prichard consistent with the doctrine of mental evolution as expounded by Herbert Spencer? I have the highest authority for saying that it is, for within the last few weeks he has told me that there is nothing in his psychology opposed to it, and that, in fact, he unquestionably believes in moral insanity. I endeavoured

in a paper I read before the "Psychology" Section of the British Medical Association, in 1884, to express the bearing of the evolution of the cerebral functions upon Prichard's doctrine; and I pointed out that the term "moral insanity" is unfortunate, so far as it induces the belief that the moral feelings are themselves necessarily affected by disease, while the other mental functions are sound. It is very certain, I said, that, on the contrary, what happens is oftentimes rather a weakening of the higher centres, involving paralysis of voluntary power, and so permitting an excessive and irregular display of feeling in one of the lower forms it assumes. This view, which transfers the seat of mischief from the feelings themselves to volitional or inhibitory power, might suggest the more accurate term of "inhibitory insanity." Speaking generally, the higher levels of cerebral development which are concerned in the exercise of moral control, *i.e.*, "the most voluntary" of Jackson, and also "the altruistic sentiments" of Spencer, are either imperfectly evolved from birth, or, having been evolved, have become diseased and more or less functionless, although the intellectual functions are not seriously affected, the result being that the patient's mind presents the lower level of evolution in which the emotional and automatic functions have fuller play than is normal.\* I admit that Prichard does not carry me with him in regard to some of his varieties of moral insanity, and that as to the particular instances which he gives in support of other varieties, justified by clinical observation, I think a more rigid examination would have detected in them some fixed idea or other disorder of the intelligence. He pointed the way, and our own experience suffices to adduce examples—better, perhaps, than his own—which illustrate his position.

I am not concerned to uphold the doctrine of moral insanity in too absolute and literal a sense. Grant, if you like, that there is no sharp line of demarcation between intellect and emotion; and grant further, if you will, that every so-called case of moral insanity, if tested and re-tested in the most rigorous and exhaustive manner by medical and legal experts, could be made to yield some proof or indication of intellectual enfeeblement or delusion, it is quite sufficient for my present purpose to maintain that disease of the brain may wreck the moral nature, while the patient would not be placed under medical care or legal

\* See paper read before the Section of Psychology at the meeting of the British Medical Association, held at the Queen's University, Belfast, July, 1884.

restraint on the ground of weakmindedness, delusional insanity, or mania.

Although, however, I do not consider it necessary to demand more than this, it is of great interest to note what the most distinguished psychologist of the present day holds in regard to the relation between intellect and emotion as to their being separately affected by brain disease. Further, it is of great clinical interest to place on record cases in which no definite intellectual disorder is observed along with indisputable moral aberration, however possible it may be to allege that it exists in spite of the most careful endeavour to discover it.

I cannot avoid referring to one of Dr. Prichard's remedies in the treatment of insanity and some other affections of the brain, which he described in the *Medical Gazette* of 1831; it was the somewhat heroic mode of producing counter irritation by an incision in the scalp along the sagittal suture, the wound being kept open by means of peas. He returned to the subject in 1836, in a paper which was read for him by Dr. Symonds before a meeting of the British Association held in this city. It was received by the audience with great interest. This method may no doubt seem very tame at the present day, when nothing is thought of trephining the skull. There is reason to believe, however, that in some cases at least, Dr. Prichard's issue was attended with benefit.

Dr. Prichard joined the Medico-Psychological Association when it was established in 1841. He attended several of the annual meetings. When the Association met at the York Retreat in the autumn of 1844 the suggestion of having a Journal for the Association was first broached, in consequence of the German Association having published its first number. The editor, the distinguished Professor Damarow, presented a copy, accompanying it with the desire of the members that the English Association should publish a similar periodical. Naturally Dr. Prichard, with his literary as well as his scientific tastes, would warmly support this proposal. The seed, in fact, was then sown, although some years elapsed before it germinated. Half a century has elapsed, and I hope we may regard the tree which has grown up in consequence as being in as flourishing a condition as Dr. Prichard and his friends could have expected.

In 1845 Dr. Prichard became a Commissioner in Lunacy,

resigning his office of Physician to the Bristol Infirmary, held by him for more than 26 years, and became a resident in the Metropolis.

The National Institute of France and the French Academy elected him a corresponding member; he became a Fellow of the Royal Society. The University of Oxford had already conferred upon him "her very highest honour," the degree of Doctor of Medicine by Diploma.

Dr. Hodgkin states that the subject of his last conversation with Dr. Prichard as they walked home together from the last meeting of the Ethnological Society at which he presided, was the publication of plates of human skulls illustrative of ethnology somewhat on the plan of the "*Crania Americana*," prepared by Dr. Morton, of Philadelphia. This, however, was not to be, but fortunately Dr. Thurnam, at that time the Medical Superintendent of the York Retreat, carried out the idea, in conjunction with Barnard Davis, in their great work, "*Crania Britannica*."

Dr. Carpenter, in reviewing Dr. Prichard's "*History of Mankind*," in the "*British and Foreign Medical Review*," July, 1847,\* expresses his sense of the "vast obligation under which both science and philanthropy has been laid by the persevering devotion manifested by Dr. Prichard, through his entire professional life, to this great object, than which nothing can well be conceived to be less remunerative, either directly or indirectly, when weighed in that commercial balance by which we are too much accustomed to estimate the merit of our pursuits."

Prichard was on circuit as a Lunacy Commissioner when an unexpected attack of illness, on the 4th December, 1848, prostrated him, and it became necessary to convey him home to his residence in London. Rheumatic fever, complicated with pericarditis, followed by suppuration in the knee-joint, terminated his career, while he was still in the full strength of his intellectual life, at the age of 62.

Thus died a most worthy man—an ethnologist celebrated throughout the civilized world, a psychologist memorable for the mark he made upon psychological medicine, an original member of this Association of whom we have great reason to be proud. When Dr. Prichard died, he was, as I have intimated, President of the Ethnological Society of London. In a sympathetic memoir of him, read before this Society after his death by Dr. Hodgkin, another distinguished

\* Edited by John Forbes, M.D., F.R.S.



member, he observes: "It has forced itself upon my reflection that the year 1848, which must ever be remarkable amongst the years of the 19th century for the savage atrocities that have signalized those wars of races which have disgraced it, will also be remembered as the year which closed the life of the greatest writer who has treated of the science of ethnology, and investigated and classified the nations and kindreds and tongues of voice-varying men."

When Professor Gibson, of Philadelphia, visited England, he saw and thus described the appearance of Dr. Prichard: "He is a short, compact, close-made man, with bluish-grey eyes, large and prominent features, and expression uncommonly mild, open, and benevolent, so much so that almost everyone would naturally inquire who he was. He is very cheerful, sociable, frank, easy, and unpretending in his discourse and manners, and has so much modesty, artlessness, and child-like simplicity about him that no one would be prepared to say, upon slight acquaintance, that he was anything more than an ordinary, sensible, well-disposed man, however much they might be pleased, which they would not fail to be, with his benignant and agreeable countenance. But it is impossible to be in his company long and to hear him talk on any subject without being strongly impressed with the depth and originality of his views, his sterling good sense and wisdom, his profound and varied information, his clear and luminous conceptions, his ardent and unbounded love of science, his extreme liberality towards every nation under the sun, his entire freedom from envy or jealousy of any description and from professional rivalry and bitterness, his singleness of purpose, his goodness of heart, and his reverence for all the duties that belong to a Christian, an accountable being, and a man."

This description of Dr. Prichard fittingly closes my brief sketch of the career of a physician of whom the familiar lines are eminently descriptive —

"In manners gentle, of affections mild,  
In wit a man, simplicity a child."

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I will now pass on to speak of Dr. John Addington Symonds, who, the sixth in medical succession in his family, was born at Oxford in 1807, but resided at Bristol or at Clifton till the end of his life, a period of forty years.

He studied medicine at Oxford and Edinburgh, where he

received the degree of M.D. in 1828. Mr. John Addington Symonds, the gifted son of a gifted father, writes: "At Edinburgh he was distinguished among his fellow-students for the union of literary tastes and pursuits with an unflinching devotion to the studies of his profession. . . . The soundness of judgment and logical precision, with which he was eminently gifted by nature, and the industry of research, which made his diagnosis valuable in all the more complicated cases of disease, were being confirmed and exercised by the perusal of Bacon, Dugald Stewart, and Dr. Brown, his three favourite philosophers. For this unusual combination of philosophical and literary ability, with practical sagacity and wisdom in the discovery and treatment of disease, he continued to be celebrated through his lifetime, forming, as it were, a link between his profession and the world of letters, and carrying on the tradition of the Sydenhams and the Harveys, of whom England is justly proud."\*

His son informs me that "for seven generations his progenitors had been Puritans; and he counted one of the regicides, Gilbert Millington, among his collateral ancestors. In the history of his mind this fact has to be noticed. Many men situated as Dr. Symonds was in early life would have become revolutionary under the impact of science, philosophical culture, and the modern spirit; he, on the contrary, gradually ripened with the years, developing a sane and comprehensive wisdom, which placed him well abreast with the most thoughtful minds of his period. The postulate of a creative and beneficent Deity appears in nearly all his published writings. At the same time, his receptive intelligence was open to all the influences of biblical criticism, of geological discovery, and evolutionary speculation, which operated so powerfully during his lifetime. In his last years he studied and accepted the Darwinian hypothesis, declaring that he did not find it to be incompatible with a belief in a planning Creator.

"The broad and wholesome development of his mental faculties, his width and sanity of culture he owed, in great measure, doubtless, to a well-balanced nature, but also, I believe, to the co-existence in him of two leading impulses. The one directed him to science, the other to literature and the fine arts, and the latter of these was probably the more instinctive. I always thought that had he been quite free to

\* "Miscellanies by Dr. Symonds," 1873, p. 10.

choose he would have devoted his talents to the higher branches of criticism. Circumstances led him to adopt the medical profession, and as a practical physician he achieved success. But he could not absorb his whole energies in the daily round of work, or in studies immediately connected with medicine. His literary tastes and gifts demanded exercise. The result was that he produced much excellent work, in which he showed how problems offered to a man of science may be treated with refined style and in the spirit of philosophical culture.

“His urbane manner of handling dry or intricate speculations, the beauty of his diction, the moderation with which he exercised judgment and drew conclusions, together with his habit of adorning scientific discussions with literary illustrations drawn from his wide reading, marked him out as a scholar and a critic of high rank, but these qualities probably obscured the real sagacity and originality of his insight as a thinker. We might compare him to that eminent physician and illustrious writer, whose works he never tired of studying, Sir Thomas Browne.

“His real distinction was that of a widely cultivated, largely extensive critic, who never forgot the interconnection of all the intellectual provinces. He brought to bear on every subject which he touched a refined and vigorous common sense, a just idea of what is possible within the limits of the human reason, and a marked impartiality of judgment. This critical perspicacity and moderation, this *humanism*, seems to me somewhat rare in our age of audacious theorizing on the one side and of specialized mental study on the other. His was a large sane mind, mellowed by deep and ardent sympathy with what is rare and beautiful in literature, schooled by the daily dealing of a practical physician with every form of human misery and shame, and pain and weakness.” (Letter, April, 1891.)

It was not long before Dr. Symonds was elected physician to the General Hospital and Lecturer on Forensic Medicine at the Bristol Medical School. In 1836 he was appointed Lecturer on the Practice of Medicine. For 17 years he retained his post at the hospital, and then became honorary consulting physician.

I wish, gentlemen, I could bring before you who were not acquainted with him, the Dr. Symonds whom it was my happiness to know in his prime—full of intellectual life—*Geist*, if that expresses it better—philosophic, æsthetic,

having the brilliant qualities which spring from the widest culture and a gifted mind; not only fond of poetry, but himself a poet, although not caring to let it be known, for as he wrote in a private letter in my possession, "There is very ancient authority for uniting poetry and medicine, though the moderns are dead against it, excepting Shelley, who in his beautiful Hymn of Apollo makes the god say :

'All harmony of instrument or verse,  
All prophecy, all medicine is mine.'

Dr. Symonds goes on to express his opinions on Shelley, Byron, and Milton, and ends his letter with :

"But I am prosing on poetry. Forgive me; and above all do not betray me. Nine-tenths of the world would not let me prescribe for them if they thought I cared two straws for poetry."

His intellectual tastes, his love of art, his refined mind and philosophic cast of thought charmed and elevated those who came within his influence. But I despair of being able to convey to those who had not the advantage of an acquaintance with him, anything like an adequate idea of his personal charm, the strength yet tenderness of his nature, the magnetism of his character, and the transparent genuineness and purity of his whole being, so happily described in the motto beneath his crest, which was no empty play on his name: *Mundus in mundo immundo*.

Dr. Symonds' countenance and bearing were in full harmony with his character. You were at once won by his gracious manner, and impressed with the intellectual expression of his finely-chiselled features, marked as they were with the indelible lines of thought and culture. These are admirably shown in Woolner's bust, now in the possession of his son, Mr. John Addington Symonds.

The enumeration of some of the articles contributed to the journals or lectures delivered by Dr. Symonds will indicate the bent of his studies, and afford ample evidence of the position which I claim for him as a medical psychologist, although I know he would have hesitated to accept this description himself.

I select the following out of the titles of the Essays referred to :—

1. The relations between mind and muscles.
2. Sleep and dreams.
3. Apparitions.
4. Habit.



5. The principles of Beauty—sensational, intellectual, moral, emotional, and ideal.

6. Criminal responsibility in relation to insanity.

Every one of these essays contains ingenious speculations and original thoughts upon the subjects he discusses, conveyed in a style singularly lucid and graceful.

(And here I would parenthetically observe that of these, his article on Dr. Prichard is one of the best examples. Mr. Symonds writes me that his father's "familiar connection with Dr. Prichard was far closer than his own modesty and dislike to introduce personal details into literature made apparent in the biographical sketch\* composed by him. Concerning the speculations introduced into that essay I have no right to speak. I will only point out the philosophical width and clearness with which he handled Dr. Prichard's theory of the origin of species. At the same time sympathetic, cautious, and independent, this critique seems to me a model of urbanity in scientific discussion.")

In the first paper he discusses with great acuteness the doctrine of effort and volition, instinct, the motions immediately consequent upon certain organic conditions without sensation; and here I must point out that the possibility of this occurrence was only just becoming recognized when Symonds wrote. He enforces the truth that they must not be restricted, as they generally had been, to those involuntary muscular actions which belong to mere nutritive life, as the contraction of the heart from the stimulus of the blood; but that they have a far wider range of activity, that, in fact, *sensation is not by any means a necessary condition of muscular contraction*. When he wrote, Marshall Hall had but recently enunciated his views on the reflex action of the cord, and Laycock had excited surprise by extending this doctrine to the cerebrum.

Passing over the sections in which he treats of motions following internal and external sensations, I must pause to refer to Dr. Symonds' treatment of the influence of the *emotions* upon muscular action. He points out in a very forcible manner the involuntary effect produced upon ourselves as regards our muscles, when we recognize the presence of a passion in another person—a true reflex action of the brain.

Again, in referring to the effect certain emotions exert

\* Read at the meeting of the Bath and Bristol Branch of the Provincial Medical and Surgical Association, March, 1849.

upon the breathing, he asks why it should be necessary, when we are engaged in some action requiring stealth and silence, to counsel one another to hold the breath. His reply is, "Under ordinary circumstances respiration occurs as noiselessly to others as unconsciously to the subject. No other probable solution of the question occurs to me than the following. On occasions of the nature alluded to, the solicitude or mental attention produces an unusual excitement of the nervous system, and a consequent hurry of the breathing, which becomes audible, and it is to restrain this derangement of an ordinarily quiet action that the voluntary effort is enjoined."

He enters into the movements which result from irritation independent of desire. He confesses that it is utterly inexplicable why a person yawns because another does, for to say that it is due to sympathy is but to compare it to something equally unintelligible. Then there is the contagiousness of hysterical exclamations and convulsions, and again, imitative repetitions of atrocious crimes, not only motiveless, but performed by persons who loathe the acts they commit when impelled by this strange reflex impulse.

Another group of involuntary actions consists of movements of habit which are explained by the law that "actions which have frequently co-existed, or followed each other in a certain succession, have a tendency to repeat that association or sequence, even when the causes which originally produced them are no longer acting." This is, of course, admitted by all; but those who read Dr. Symonds' article will be struck with the able manner in which he traces many of our daily actions to a fundamental law of our nature. Automatic writing, again, which has been so much studied since his day, is happily treated of and illustrated. For example, there is, so to speak, a mistake of the muscles when a perfectly educated man writes the *adverb* "there" when he intended to write the *pronoun* "their." In the same way a man makes a mistake in writing when others are talking in the room; his muscles act reflexly, and a word is written which is heard instead of the word in the writer's mind. As Dr. Symonds puts it, some word diverts the writer a moment from his previous train of thought; the muscles continue to act, and follow the impulse of the word in question. He points out the beneficial influence of the law that motions are as immediately consequent on ideas as they are on sensations and emotions. Thus authorship would be very

rare if it were necessary that the writer's mind should be voluntarily instead of automatically directed to his pen. "How many sublime meditations would have been lost to the world if the legs of peripatetic philosophers had required the constant superintendence of their minds. Or to come down to more ordinary pursuits, the knitting needles of the intelligent lady would make but slow progress in their charitable employment, were her muscles unable to guide them without the direction of the mind, which is engaged in the conversation of her friends. How could the weaver sing his psalms, or the waggoner whistle his rustic strains, did the shuttle of the one, or the whip of the other, require that mental attention which is occupied by their respective melodies?" These examples of unconscious muscular action are excellent illustrations of a great truth in mental physiology, now known to be so important, but barely recognized when Symonds wrote.

The article upon "Apparitions" is an exceedingly thoughtful one, and among other questions, Dr. Symonds discusses the difficult one of the seat of representations of former perceptions, in other words subjective sensations. He was not disposed to believe that "sensible images, recalled in the usual operations of memory and imagination, take place in the external organs," and, therefore dissented from the well-known doctrine of Sir David Brewster that they do.

He adduces the fact that persons who have become blind from paralysis of the optic nerves, or extirpation of the eyeballs, may continue to see objects in the mind's eye. He explains the observation of Dr. Bostock that when he was recovering from an illness he saw spectres constantly for three days, which altered their position according to the direction of his eyes, by pointing out the tendency the mind has to associate ideas with those of the same degree of vividness; "thus in the first remembrance of an absent friend, he is surrounded by the places and circumstances in which we formerly saw him. Now when we move our eyes, a new field is, of course, presented to us, but the vivified image is still associated with the visible objects, and the idea of motion is produced in the same complex manner as when, on observing a distant carriage, we discover that it moves, not by the feeling consequent on a change of place on the retina, but by seeing it in connection with new objects in the landscape." It would, however, occupy too much time to pursue further



the arguments upon which Dr. Symonds bases his conclusions that "apparitions are not to be referred to affections of the retina." At the same time he admits that it is not absolutely impossible that there may be a transmission from the sensorium to the peripheral sense-organ. Now I think that with our increased knowledge of sensory centres we must conclude that while hallucinations arise in the majority of instances in the sensory areas of the cortex, and do not involve the peripheral terminations of the nerves in the organs of sense, it is quite possible, and indeed probable, that the latter are in *some* instances the seat of the revived impression. My object, however, is to show how intelligently, and with what scientific acumen, Dr. Symonds occupied his mind and pen in endeavouring to unravel some of the difficult psychological tangles of his and our own day.

Mr. Symonds has been given to understand—and correctly—that his father's "open-minded inquiry into the phenomena of double consciousness (in the essays, on 'Apparitions' and on 'Sleep and Dreams'), his analysis of the interaction of memory, association, and imagination in the formation of dreams, his attribution of a real psychological importance to the operation of the mind in sleep, and his acceptance of dreams as a form of unconscious art-creation, indicate a remarkable prevision of the way in which such delicate psychological problems are being now approached. That is to say, he had a liberal, a philosophical and a sympathetic mind; handling these moths and phantasms of our consciousness with curiosity and tenderness, not dismissing them upon the ground of some assumption, recognizing their relative value, and even accepting modes of explanation which are adopted by those who devote special attention to such matters. It seems that what he said about apparitions of the living is not even now out of date, while his distinction between the supernatural and the miraculous, and his discourse on the methods of explaining hallucinations—fertile in a hundred ingenious suggestions—remain unsuperseded by the industry which has been since applied to these phenomena."

Mr. Symonds further writes to me that his father, as a psychologist, occupied, he thinks, a somewhat peculiar position, and that he exercised the power of a critic, the power of one who brought feeling, common sense, sagacity, and readiness for new ideas to bear upon the matter. He did not attempt to innovate or legislate, he did not pretend to



forge theories for facts which have, as yet, been too imperfectly observed. He made it rather his function to classify opinion by the exercise of a widely trained and comprehensive judgment.

I would here observe that Dr. Symonds' essay, entitled "The Principles of Beauty," brings out in a striking manner alike the psychological acuteness and the fine artistic perception with which he was endowed. I fully agree with his son that in this discourse his gifts, as a writer, "appear in passages of the purest prose, while his philosophical temper of mind and his scientific acquirements are exercised on a congenial topic. It may, perhaps, be regretted that he devoted so much attention to developing a theory of the harmonic ratios upon which beauty, in the physical world, depends. But the way in which he grasped and expounded that theory throws light upon the groundwork of his philosophical creed. He truly believed that the universe is the work of God, the manifestation of the mind of God, and that, therefore, in all the rhythms of the world we shall find one order and one music." And Mr. Symonds adds, "This is a belief which, to my mind, is being forced upon us by the evolutionary hypothesis. Certainly it is one which psychologists, in an age addicted to so-called materialistic explanations of phenomena, might well keep steadily before them."

I must now draw special attention to his admirable article on "Criminal Responsibility in Relation to Insanity," read before the Bath and Bristol Branch of the British Medical Association, which met at Clifton in 1869. Of this essay the "*Journal of Mental Science*" wrote (1865, p. 273), "It is almost needless to say that Dr. Symonds' essay is worthy of perusal. Any contribution to practical medicine bearing his honoured name would necessarily command our attention."

It was written shortly after the conviction of Townley for murder, which raised such a storm of medical discussion on the question of his insanity, Dr. Bucknill and others in England being prominent upholders of his responsibility, and the celebrated Dr. Morel, of Rouen, taking a decided view that the man was insane and irresponsible. Dr. Symonds took the former view, and considered that the alleged delusion of Townley was the outcome of violent personal feeling, and was not sufficient to prove a diseased state of mind. It should be noted that he did not hold that

mental unsoundness should *always* exempt the criminal from punishment. He maintained that it is not the business of the mental physician to determine the question of responsibility; that all he is called upon to declare is whether the man is sane or insane—in short, what he said was this, if we declare him to be unsound in mind, “let moralists and legal judges settle the question whether he is responsible for his actions.” The alienist must in each case inquire (1), “As to delusions, whether they were of so gross a nature as in themselves to argue a diseased state of the understanding; or whether, though of an insulated nature, and not involving the whole mind, they had a direct bearing on the crime. (2), As to cases without manifest delusions, whether the state of the emotions and moral feelings was so perverted, either with reference to the ordinary standard, or with reference to what was the patient’s temper and character, as to indicate a morbid condition, that condition telling in particular on the power of self-control. (3), As to the impulsive forms of mania, these ought not to be admitted except on the strongest evidence.” He points out that fortunately in such cases “the evidence is usually very convincing, if not to the legal mind, to those who have any practical acquaintance with the great variety of the forms which mental disorder can assume.”

I have already adverted to what Dr. Symonds himself felt that he owed to Prichard for what he had taught him about moral insanity, but I should like to quote further some of his remarks upon the general subject. “It seems to me strange,” he says, “when we reflect on the large share which the emotions and sentiments and passions bear in the mental constitution of man, and when we consider that there has been no disinclination to attribute susceptibility of separate and independent derangement to another part of our constitution—I mean the purely *intellectual*; and, moreover, that the most strenuous asserters of the doctrine that insanity, in all cases, involves a perversion of judgment, do not attempt to conceal that the propensities, tastes, and emotions are often, or, indeed, in most cases, morbidly affected; I say it seems strange that the question should not have presented itself before, as to whether there are not actual cases in which mental derangement is confined to *moral* feelings and the emotions, just as in other cases the perceptive and reasoning powers are the sole subjects of disorder; and stranger still that, whether such

*a priori* suspicions ever arose or not, the real existence of such cases should not have attracted observation. That they have been so entirely overlooked can only be explained on the ground that the sentiments and passions of man have been generally considered subservient to the will and reason, and that any undue excitement of the former (the passions) has been consequently supposed to arise either from a criminal want of control on the part of the will, or from a deficiency of rational power; so that, according to this view, a man of violent passions or eccentric conduct, unless proved to entertain some delusion or hallucination, must be either wilfully perverse or chargeable with moral delinquency.”\*

Well may Dr. Symonds add that “On the whole I cannot help viewing the subject as one of the most interesting in the whole range of morbid psychology. And it is impossible to think of it without having the mind filled with very melancholy reflections. . . . The consideration of that perversion of the natural feelings, tastes, and habits which constitutes ‘moral insanity’ introduces us to a wide world of human suffering, which, though it may not be peopled with such appalling apparitions as have risen before the imagination of poets, and been embodied into the undying forms of Orestes, Ajax, and Lear, yet swarms with unhappy beings—sufferers whom we view not in those throes of anguish which by their novelty throw an air of elevation or sublime indistinctness over their subjects, but in the ordinary habit of the mind, in the quiet paths of life, in the domestic chamber, and by the friendly hearth” (p. 158). Dr. Symonds, after pointing out that while patients suffering from other forms of mental disorder “are followed in their retirement by feelings of tenderest compassion and regret,” adds, “Alas! how different the fate of those who are afflicted, not with aberrations of judgment, which are detected by even the simplest of sound-headed observers, but with marked obliquities of feeling which are so easily confounded with bad passions wilfully indulged, and with evil habits wilfully pursued” (p. 139).

Dr. Symonds supplied Dr. Prichard with the particulars of a case which he regarded as one of moral insanity.† Some years previously the patient had had an attack of

\* Life of Dr. Prichard, in “Miscellanies,” p. 136.

† See “Treatise on Insanity and Disorders affecting the Mind,” by James Cowles Prichard, M.D., F.R.S., 1835, p. 50.



acute mania. After his recovery his moral character was found to have undergone a change. But "there was no evidence that he entertained any belief in things morally or physically impossible, or in opposition to the general opinion of mankind." Dr. Symonds adds that after deliberation he came to the conclusion that although he had been unable to trace any positive intellectual error, "there was such a morbid condition of the feelings, habits, and motives as to constitute a case of what has been correctly designated by Dr. Prichard as moral insanity." I am bound, however, to say that other features of this case appear to me to take it out of the category of pure moral insanity.

His son justly remarks, in reference to this subject (moral insanity), "it must be remembered that a theory of insanity apart from mental delusions was at that time novel, almost revolutionary. When I read these dissertations, I feel how little we have advanced beyond the principles there advocated; and how valuable were the calm humane philosophy and the cautious exercise of the author's judgment upon topics involving such immense moral and legal difficulties. If anyone should turn to those modest essays by Dr. Symonds after the perusal of Lombroso's work on 'Criminal Psychology' he will not fail to perceive what it was in the temper of my father's mind which I think worthy of imitation. Realists in art, and realists in science, might object that he approached the painful topic far too superficially; I can only answer that I have watched him labouring with loss of appetite and loss of sleep under the pressure of some case of obscure mental disease, which he had professionally to deal with. And, for myself, I admire the sanity of judgment which enabled him, after those trying episodes, to survey the dark subject-matter in the spirit of an Aristotle or Hippocrates."

But I will not pursue further the consideration of a doctrine which has had the good fortune to be illustrated and defended by these two remarkable men.

I think I have quoted enough from the writings of Dr. Symonds to prove that it is not without reason that I recall this gifted physician to the memory of a company of medical psychologists. Of the estimate in which his professional skill was held, the practice which he enjoyed for many years in this city and the neighbourhood, is a sufficient indication. A large number of his patients came from a distance, attracted not only by the climate of Clifton as a health resort in the winter months, but by the reputation of Dr. Symonds.



He was interested in all the social questions of the day, sceptical of nostrums and fads, but warmly supporting sound plans for the amelioration of the miseries of his kind, whether moral or physical. It was indeed after his health had broken down and when he ought to have had a long period of much needed repose, that he took a leading part in the meeting of the Social Science Association held at Clifton in 1869, and presided over the Section of Health, at which he delivered an able, eloquent, and practical address, one also full of hope for the future of our race, ending as it did with the words, "We cannot easily suppose that our earth will have lost her heat, or our sun have ceased to burn, before man has experienced and enjoyed the perfect evolution of all those capabilities and faculties with which his Maker has endowed him, before all that is now only potential and latent has come out into form and action."\*

It was shortly after the delivery of this address that his professional life closed.

Professor Newman thus writes to me respecting Dr. Symonds, who was his junior by four years: "His amiable manner and his excursive mind made him a universal favourite, while his extensive medical study prepared him for a high place in his own profession. He was already a proficient in outlying literature quite beyond me, though time did not allow him to attain any such eminence as his son has achieved, but on the topic of Greek tragedy he had knowledge, and on this we had many a friendly gossip. I had no means of cultivating taste for art such as Dr. Symonds more and more indulged, but I could not help feeling that had medicine not been his first pursuit, his mind would have carried him into several directions of beauty. I once accepted hospitality from him when he was the leading physician in Clifton, and on my return to live there, in 1866, I found in him a geniality quite unaltered. I soon believed that he was overworking himself. At last I took on myself the responsibility of remonstrating with him, and spoke to the following effect: 'You have amassed in your elegant house stores of various beauty, which you have not time to enjoy. Your distant patients will kill you. Evidently you need more rest. Take rest before nature forces you to take it.' He listened kindly and silently, but some days later said that he had lessened the calls upon him, so far as he

\* "Miscellanies," p. 400.

could, *without cutting through his principal artery*. I remember this characteristic metaphor. Alas! when I saw him for the last time he said, 'Oh, Newman, your word to me was like that of a prophet. I no longer have the power to choose what I will or ought to do.' He died soon after, most regretted by all who knew him best."

"If before his illness his life had been a pattern of strenuous activity," writes his son, "it now became no less remarkable for patient endurance, and for cheerfulness under privation. Struck down at the early age of 62, suddenly arrested in the midst of a career of usefulness, smitten by a slow disease, forced to exchange authority for obedience and energy for inaction, he never murmured, but supported himself with a philosophy of tranquil and unquestioning acceptance."

"To the last he continued to converse with pleasure upon all topics, showing a mind at rest—perfectly content to quit this world, serene in the certainty that it must be well with those who have striven to conform themselves to the divine will."\* His son does not speak too strongly when he concludes his too brief memoir of his father by the remark that he has endeavoured "to give some faint idea of the character and genius of a man whom those who loved him felt to be as good and great as man on earth may be," or when he applies to Dr. Symonds the words employed by himself to express his own ideal of a perfect character, as manifested in "those who, in passing through the world, escape contamination, who devote their faculties, endowments, and exertions to the promotion of the happiness of others, by making them wiser and better, and who show, in all their actions and feelings and endurance, that the moral sentiments are developed to the greatest height commensurate with humanity—because they are interpenetrated with, and become assimilated to, the divine light and the divine pattern."†

Dr. Symonds died on the 25th February, 1871. No physician in Bristol was more loved in his life-time, none more mourned in his death,

"Nor e'er was to the bowers of bliss convey'd  
A fairer spirit or more welcome shade."

\* "Miscellanies," p. xxvi.

† "Miscellanies," p. xxxii.

*Use and Abuse of Hyoscine.* By LIONEL WEATHERLY, M.D.\*

My apology for reading this short paper must be, my belief, that at our meetings too few communications are made bearing upon the medical treatment of mental disease.

Pathological research keeps making headway, but it must be disappointing to all of us engaged in psychological medicine and to the general practitioner (not to mention the general public) that our treatment does not at all keep pace with our knowledge acquired by study at the post-mortem table.

In all branches of medicine we have been inundated lately with new drugs, the manufacturer of each heralding abroad and trumpeting loudly the most fulsome praise of its wonderful effect. Possibly no class of medicine has furnished more new remedies of late years than that coming under the name of *Hypnotics*.

Of all these remedies not one, I firmly believe, deserves a permanent place on the shelf of our armamentarium so truly as Hyoscine, *if properly and carefully used*.

Hyoscine is an alkaloid—obtained from Hyoscyamus. Its salts readily crystallize. The preparations generally used are:—

The Hydrobromate.

The Hydro-iodate.

The Hydrochlorate.

The solution I use is always made up as 1 in 400, and as it is a drug which is not easy to keep, I use a sterilized solution with 5grs. of Boracic Acid to the ounce.

Dose:  $\frac{1}{300}$  -  $\frac{1}{100}$ , increased very cautiously to  $\frac{1}{50}$ .

It is practically tasteless, which is a very *great advantage*.

Its antidote is Pilocarpine or Caffeine.

Speaking generally, its physiological action is as follows:— (Dr. John Mackenzie states that this is a bad drug to use continuously, as its use is followed by loss of weight and degradation of habit, the patient becoming untidy, etc., but my experience does not agree with this.)

*Kidneys*.—Dr. Tirard says it can be used with perfect safety where there is kidney disease and where morphia is therefore contra-indicated.

*Digestive System*.—It causes dryness of mouth and throat by diminishing flow of saliva.

\* Paper read at the Quarterly Meeting of the Medico-Psychological Association, held at Brislington House, Bristol, May 1st, 1891.

It may cause nausea or even vomiting ; but this is rare.

It does not purge ; but has no control over diarrhœa.

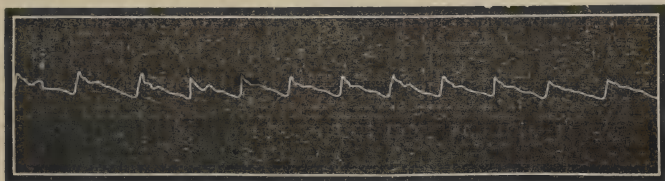
*Temperature.*—There are no statistics of any effect of Hyoscine in reducing temperature, but it is undoubtedly useful in controlling the delirium of high temperature.

*Respiration.*—It is said to have no effect on the respiration.

*Circulation.*—The effects upon the pulse are certainly open to some doubt, though I have found that in the majority of cases it depresses the circulation.

Whether by direct action on the heart or its centres, or by affecting the peripheral resistance, I am unable to say.

Sphygmographic tracings, before and after Hyoscine, are somewhat variable in their characters, but the one I show, which Dr. Buck, my Assistant Medical Officer, has taken for me, may fairly well illustrate the results on a normal heart.



No. 1.—Tracing taken before Hyoscine was given.



No. 2.—Tracing taken half an hour after administration of Hyoscine.

It will be plainly seen that after the Hyoscine the line of ascent is shorter, the general curve is long and low, the diastolic wave is lost—in fact the pulse shows a tracing characteristic of heightened arterial tension.

This was the effect of a very small dose on a patient who has some tolerance of the drug.

I therefore agree with those authorities who have warned practitioners against the use of this drug, unless with the most watchful care, in cases of heart disease, though I know some hold a directly contrary opinion.

In cases where there is evidence of a weak heart or general feeble circulation I always combine 3ss or ʒi of Spt. Am.



Arom. with it, and this invariably counteracts or diminishes the depressing effect upon the circulation without in any way interfering with the action of the drug on the mental condition.

*Nervous System.*

*Motor symptoms.*—Walk may become ataxic even after a small dose, and cause a great feeling of fatigue. This I have noticed myself in some few cases. On the other hand, in some cases of disseminated sclerosis, senile, alcoholic tremors, and paralysis agitans, the drug has a marked controlling effect over the tremors and the powers of co-ordination.

*Brain.*—It often causes dizziness and even delirium. It may cause hallucinations, or change their character, and certainly in some few cases of hysterical mania it has produced hallucinations of the muscular sense.

*Mental excitement*, especially motor, is greatly controlled by it if not hysterical. It often fails, however, as a hypnotic in the excitement of tabes, and other cases where the motor symptoms are more prominent.

Its effect on temper and irritability, if given in repeated small doses, is in the majority of cases very marked.

*Sleep.*—By injection, one observer writes that his experience of this drug is that actual sleep is not produced, but a condition greatly resembling sleep, in which the patients are always found somnolent, but yet awake. My experience is certainly the same, *but* only when a small or moderate dose is given. A larger dose, say  $\frac{1}{15}$  gr., will often produce a deep sleep, though this will pass into a simple somnolent condition, after the lapse of a comparatively short time.

My experience of this remedy, extending over a period of three years, teaches me that its proper use is as a *mental alterative*, and in certain cases I must candidly confess I have seen it work almost wonders.

Most of us have constantly under our care cases which, maybe, partly from natural peculiarities of temperament, exaggerated by the insanity, partly from excessive brain irritability, render our lives a burden to us; not only to ourselves, not only to the attendants, but also to the patients around them are they a constant source of annoyance and worry. Quarrelsome to a degree; resenting vigorously the most ordinary rules of discipline; abusive, arrogant, and domineering.

Give such a case many of the drugs we have been in the habit of using, and what effect have they? None. The

incubus remains a stern reality in our midst, until his period of brain irritability has passed off.

Give such a case repeated small doses of Hyoscine, say  $\frac{1}{100}$  of a grain, by the mouth, and what a change, in a large majority of cases, takes place!

I have seen many a time in my asylum such a case, under the influence of two doses of Hyoscine, and even of one small dose, become a decent member of society. From insolence and arrogance the stage to politeness and amiability has been as rapid, as marvellous.

The man, who was but a short time ago quarrelling with all around him, and showing himself to be a passed professor in the Anglo-Saxon language, suddenly asks one of his companions to play billiards with him, or sits down to the piano, or again makes himself comfortable in an armchair with a book or newspaper; and his tongue is no more that of a viper.

Take yet another case.

I have in my house a gentleman who suffers from the most marked Folie Circulaire. In his periods of excitement, before I used Hyoscine, I could find no means of ameliorating the acuteness of the attack, nor of checking the rapid increase of his maniacal excitement, his pulse bounding and throbbing violently, his scalp hot, and veins markedly full, his abuse, his opinion of his wonderful powers, his plans for altering the universe and setting everything right, becoming more and more exaggerated every minute. A dose of Hyoscine is given. In a few moments (certainly within the quarter of an hour) his pulse becomes compressible, his veins lose their turgid appearance, and the excitement shows symptoms of greatly subsiding; though the sub-acute stage thus produced may persist for some time.

Again, as showing the action of this drug as a mental alterative, let me briefly state the history of a case of puerperal mania I saw with my friend Mr. Craddock.

She was dreadfully excited, destructive, and violent; all attempts to get proper nourishment failed. No sleep whatever. She was rapidly passing into that fatal typhoid condition we so often see in these cases; high temperature, quick, weak, and thready pulse, dry brown tongue, and parched lips.

Every sort of drug had been tried. The case looked a hopeless one. We at once gave her, through the stomach tube, a good quantity of eggs, milk, and beef tea, and  $\frac{1}{100}$  gr. of Hyoscine. She soon went to sleep and slept apparently a healthy, natural sleep for eight hours. When she woke she

was amenable to the nurses' wishes with regard to taking her food. Hyoscine was given night and morning, and though at times the excitement was great and she remained quite incoherent, still the nurses had but little trouble with her, and said she was a different being with regard to obedience to their wishes. In seven days she began to get lucid intervals of ten minutes' duration. These gradually increased in length and in frequency, whilst the excitement steadily decreased. The Hyoscine was steadily persisted in for 20 days. Then the improvement was so marked that it was left off. Two months from the day I saw her she had quite recovered.

From the time of the first dose of Hyoscine the persistent resistance to the wishes of the nurses with regard to feeding, etc., and which so handicapped the possibility of treatment, *never returned*.

A general paralytic, with delusions of untold wealth, *but* with the fixed idea that he had been robbed of it all, and by those in charge of him. His excitement at times and his wrath know no bounds. He longs for revenge, and no punishment is too great for the criminals who have so cruelly robbed him. Argument is, of course, useless. It only irritates. To leave him alone is impracticable, if not inadvisable. *Hyoscine is given*. Ten minutes, we are all friends and brothers, and "*jolly old pals*."

It can be given in violent mania hypodermically, and its effect in many cases is to "knock over" the patient almost in a moment, but it is, I maintain, a dangerous remedy used in this way, unless it is carefully administered and its effects most attentively watched.

A case of acute delirious mania. The patient stripping himself, trying to dash out his brains against any object within his reach, desperately fighting with all around him, shouting, cursing—literally foaming at the mouth.

Give such a case, say  $\frac{1}{100}$  gr. of Hyoscine hypodermically, and probably before you have cleaned and put away your syringe your patient lies huddled up on the floor apparently in a deep sleep. Speak to him, he will open his eyes for a moment and probably answer you coherently, though only in monosyllables. A vastly different creature, indeed.

But, as I have said, this is not always the happy result. The drug may in some cases produce such a condition of failure of the circulation and respiration that the patient seems in the most imminent danger.

I believe, however, that this effect, though very commonly

produced by *Hyoscyamine*, is more or less rarely caused by this drug. *Hyoscyamine* is constantly confused with *Hyoscine*. It is a remedy I would never use, and I am always cautioning medical men against confusing this dangerous remedy with the more or less safe one under our notice at present.

In hysterical cases with hallucinations I have found *Hyoscine* to be a very unsuitable remedy; though I cannot explain the reason of its failure.

In such cases the effect on the patients to whom I have given it has been either *nil* or very distressing.

I cannot do better than repeat what a patient (a case of Hyst. Insanity, with Hall., Ill., etc.) herself wrote of her experience of a dose of this medicine given hypodermically whilst in a condition of wild hysterical mania. "The needle was inserted in my arm, and I was put on the bed—a very queer state. I thought I was dying. I did not close my eyes for fear of losing consciousness, and as I spoke my voice seemed to come from the ceiling. I managed to unfasten my things and get my breath, and then my mouth and throat became dryer and dryer, and I could not swallow. I thought I was dying and kept choking, and when I tried to get to the water bottle I kept falling backwards, as if I had a load on my back. I suddenly sank, and felt myself dying, and I burst into peals of insane laughter. I tried to stop myself. As I sank lower and lower the louder I laughed. I gradually came round and looked in the looking-glass. I had the face of a raving lunatic, as if a cobra was on my head. When I was in bed the doctor and nurses came and stood around me, their faces bathed in bright gold, their eyes blazing and gleaming with insanity at me. They seemed turned to stone, like corpses, as I sat up staring at them in *horror*. Their faces were in a decomposed state. It was awful."

It was indeed with "horror" that she looked at us, and, holding my hand, begged me to save her from death and never to allow her to have the injection again.

In two other cases of hysterical insanity with hallucination I have used this drug, and in both it certainly altered the character of the hallucinations, making them ten times more distressing and horrible, and causing in each case hallucination of the muscular sense.

In cases of hysterical mania with hallucinations I have given it with very varying effect, and generally speaking I do not think the drug is a satisfactory one in any cases of insanity with hysterical symptoms.



In delirium tremens I have advised its use, and it has, in the few cases I have seen, been very successful, especially in a case under the care of Mr. Scott, who had tried all sorts of drugs with no effect, and the case was completely wearing all out. One hypodermic injection of Hyoscine procured long and natural sleep, the patient woke quite well and was in his business in 48 hours.

In a case of disseminated sclerosis with very exaggerated tremors and loss of brain power, Hyoscine has acted wonderfully well, and the medical man, Mr. Charles Terry, under whose care the case is, tells me that for four months the patient took  $\frac{1}{100}$  gr. twice a day with very good effect on the tremors and co-ordinating powers generally, and that it certainly increased the brain power. It was then given in doses of  $\frac{1}{50}$  gr., with very marked benefit. The shaking of the hands improved, the running backwards disappeared, and there was still less general tremor. The set look of the face improved, and more interest was taken in the events of the day.

I have seen this case several times, and the patient himself finds a great difference in his symptoms, if from any cause he leaves off taking the medicine for even twelve hours.

My friend, Dr. Law Wade, with whom I have had many conversations about this drug, and who, when he first used it, was disappointed in the results obtained, now writes me "that the steady administration of a small dose three times a day has acted wonderfully well in several cases, so well that it is impossible to conclude that the result is due to anything but the drug."

In mental depression I have found no good result, though I have tried it in many such cases.

In conclusion, I must repeat that I believe the most important use of Hyoscine is as a *mental alterative* in those cases which I have mentioned, as showing benefit by its administration in small and, if necessary, repeated doses.

In these cases it certainly changes the patient from an unmanageable, revolutionary factor in our midst to a person who is fairly amenable to the wishes of those about him, and often to a very presentable member of decent society.

It, as it were, knocks off the rough edge of temporary excitement and irritability, landing the patient, in many cases, very rapidly into a quiescent and altogether happier state of mind.

No one who has charge of insane patients can possibly disagree with the utility of a drug acting in this manner.

Its next use, I take it, is to control the tremors which we get in multiple sclerosis, in chronic alcoholism, and in paralysis agitans, and in many cases of general paralysis it greatly improves the powers of co-ordination when they are affected.

To rapidly subdue delirious and maniacal excitement it is certainly a valuable agent in experienced and careful hands, and will act more rapidly and more surely than any drug I know when given hypodermically; but as it is not a safe remedy I look upon the indiscriminate use of it as a powerful and sudden hypnotic as *its abuse*.

In some instances, as I have said, it certainly acts in a way no other drug known to me can act, but it may be attended in other cases with sudden fatal results, and I therefore think I am right in calling the indiscriminate use of a remedy with a possible action of this sort *its abuse*.

The kind of cases I believe it to be unsuitable for, I have already mentioned.

I trust there may be many here to-day who have definite experience of this, to my mind, valuable medicine, and that the discussion will throw more light upon its remedial powers and uses in mental disease.

Nothing, however, will shake my firm belief in the utility of the alkaloid in the class of cases I have tried my best to describe as suitable for its administration.

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*On the Arithmetical Faculty and its Impairment in Imbecility and Insanity.\** By WILLIAM W. IRELAND, M.D.

The operation of counting is so familiar to us, and so easily brought under mental observation, that a definition of what it is in learned terms does not make anything clearer to our minds. The abstract idea in numbers is as many as, five, that is, as many fingers as I have, as many as you have, as many as your mouth and eyes and ears together, or as many as the sepals of the rose.

Numbers relate both to time and to space, phenomena occurring successively as well as simultaneously, as many as, and as often as. He has as many teeth as you have lived years. The infant at first sees everything as one. Gradually it begins to differentiate, to distinguish itself from other things,

\* Read to the Meeting of the Medico-Psychological Association, at Edinburgh, 12th March, 1891.

one person from another, one discrete object from another. Then children learn to distinguish quantities, they know a big piece of cake from a small piece; but even after a child has learned to speak, more than two years pass away before he can be taught to count. Thus children exercise many of their faculties before they arrive at the arithmetical one, and some do it very slowly. The power of counting comes with age and the growth of the brain. It is noticed by teachers that bright, sharp children with good memories, who get above older children in the class, do not readily surpass them in arithmetic. It is frequently stated in books of anthropology that savages very low in the scale of humanity cannot count above some small figure.\* The Weddahs of Ceylon are said to have no word for any number; the Tasmanians used to have words for one and two, for three they would say two and one, and sometimes two and two for four. To indicate five they lifted their hands as high as a man's head. Thus, although they had the idea of the number five, they had no word for it; for higher numbers they would only say many. "Throughout Torres Straits † there were practically but two numerals, *urapun* and *ōkōsā*, which were respectively one and two in the western language. Three is *okosa*, *urapun*; four is *okosa*, *okosa*; five is *okosa*, *okosa*, *urapun*; six is *okosa*, *okosa*, *okosa*; beyond that they usually say *ras* or a lot." The Australians have only two numerical expressions; but by combining them they can count as far as 10. The most intelligent, when they want to express the number five, say "hand," and for the number 10 they say two hands. Sometimes for four they say as many as the toes of the emeu. The Bushmen have only two names for numerals, and reach a little higher by repeating them, as  $2+1$ ,  $2+2$ ,  $2+2+1$ , and so on. Our system of numbering by tens and twenties, which prevails in almost all languages, shows that men originally began counting on their fingers.

Most of the tribes in New Caledonia, according to Letourneau, have only four nouns of number. For five they say "a hand," "two hands" will mean ten. If they wish to go beyond ten,

\* "Sociology based upon Ethnography," by Dr. Charles Letourneau, English translation, London, 1881, p. 583.

† See a paper on the "Ethnography of the Western Tribes of Torres Straits," by Alfred C. Haddon, "Anthropological Journal," Vol. xix, p. 303. Taine in his book on Intelligence, London, 1871, has the following note: "As to the primitive meaning of our nouns of number, see Bopp. Comparative Grammar (tr. Breal), ii, 221. *Tri* (three) means exceeding, i.e., the two inferior numbers. Four probably means three *plus* one; five, four *plus* one; ten, twice five. A hundred certainly means ten times ten. A thousand probably means many, a great number" (p. 412.)

they begin to count again as far as five, and after that they put forward a foot, or five toes. When they have got as far as twenty they say "a man," that means all a man's fingers and all a man's toes. Some few clever calculators can continue in this way, but the most skilful mathematicians in all New Caledonia cannot get beyond two or three hundred. Beyond this colossal extent of numeration, people make use of the expressive saying, "The grains of sand could not count it."

If you ask a Greenlander the number of people about, and he wishes to say fifty-three, he will say the third man on the third foot, *i.e.*, he counts the fingers and toes on three men till he comes to the number three on the first foot of the third man. Traces of this remain in our arithmetical notations. The Roman I. originally represented a finger; II., two fingers; and so on up to V., for at least one way of writing IV. was with four strokes, IIII.\* The Roman V. represents the hand, four fingers held together and the thumb held separate. X. represents the two hands drawn together or two V.'s affixed to one another, the undermost being upside down. The Arabic cipher for five seems to me to be the closed hand, the upward stroke being the thumb. In the Indian ३ we have our own figure for three, three digits represented laterally instead of vertically, as in the Roman. It is thus clear that men beginning to count rested their eyes upon visual symbols; for higher numbers they helped their conceptions with small objects easily shifted, added, and subtracted, hence the word calculate from calculus, a pebble. In higher numbers the cipher used must have been always more ideographic than figurative. The Mexicans, who without any help from the Old World, worked out a system of notation of their own, indicated the first twenty numbers by an equal number of dots. The first five, Prescott† tells us, "had specific names, after which they were represented by combining the fifth with one of the four preceding, as five and one for six, five and two for seven, and so on. Ten and fifteen had each a separate name, which was also combined with the first four, to express a higher quantity. These four, therefore, were

\* Of course IV. means one finger less than a hand. In some cases numbers are expressed by a subtraction from a round number like ten, as in the Latin *undeviginti*, in the Hindustani *unis*=19, one from *bis*=20, *untis*=39, one from *tis*=30, *untalis*=49, one from *chalis*=40. The Yombas of Western Africa, who have a curious system of numerals, also, in some instances, make use of subtraction. See paper on "The Numerical System of the Yomba Nation," by Adolphus Mann, in the "Anthropological Journal," Vol. xvi, p. 60.

† "Conquest of Mexico," Vol. i, Chap. iv., p. 98.



the radical characters of their oral arithmetic, in the same manner as they were of the written with the ancient Romans, a more simple arrangement probably than any existing among Europeans. Twenty was expressed by a separate hieroglyphic—a flag. Larger sums were reckoned by twenties, and in writing by repeating the number of flags. The square of twenty, four hundred, had a separate sign, that of a plume, and so had the cube of twenty, or eight thousand, which was denoted by a purse or sack. This was the whole arithmetical apparatus of the Mexicans, by the combination of which they were enabled to indicate any quantity. For greater expedition they used to denote fractions of the larger sums by drawing only a part of the object. Thus, half or three-fourths of a plume or of a purse represented that proportion of their respective sums and so on.”

In building up a science of numbers men steadied their conceptions with names. Though the name does not furnish the idea, it is only with names retained in the mind as a series that we can reach and realize the conception of high numbers. It may appear that we have no precise conception of a number like a hundred thousand, or a million, but while such names may be repeated with only a vague idea attached, they surely conduct to conceptions which are very precise. We can always make an exact correspondence between the group of units indicated by the name in our minds and the outer heap or succession of units in the phenomenal world. No abstract ideas in our minds, therefore, contain less error, and have clearer relations to outward objects; men who differ about everything else, about the just, the true, the good, or the beautiful, who would dispute about every point in religion or politics, would agree in counting a heap of objects, or adding a column of figures.

Then we see our ideas of numbers pervade all nature, in the relations of the stars and planets, as well as in the sides of the minutest crystal. The numbers of parts of the flower are repeated in the same multiples. Two and five are the commonest figures in nature; two answers to the double brain and five to the digits of each limb, which are all severally represented in the brain.

Some people, in thinking of numbers, always associate them with the corresponding ciphers; others with certain figures, such as the corresponding number of dots. One boy told me, in thinking of small numbers, he always conceived them as so many dots or spots arranged in a form, which he showed me, and which seemed the same as that of the numbers in dominoes.

Others conceive of numbers as if arranged in a series, as might be on a board, in lines of various direction, the rows of ciphers generally breaking off in a new direction at 10 or 12. This peculiarity illustrates the tendency to connect visual images with our ideas of numbers. Mr. Galton,\* who has written a curious essay upon the subject, found these "number-forms" to occur in about one in thirty of men and one in fifteen of women.

I have here a chart which a lady has written for me, showing how she pictures to herself numbers in a series, as if written on a board. It resembles some of those in Mr. Galton's engravings.

Some writers on anthropology, mostly evolutionists, after giving instances of the meagre vocabulary for numerals amongst wild tribes, treat them as proofs that savages have no capacity for counting—that they have never arrived at the stage in which the arithmetical faculty has been evolved.

Romanes† quotes Galton's observations in Africa to show that in dealing with certain savages "each sheep must be paid for separately, thus: Suppose two sticks of tobacco to be the rate of exchange for one sheep, it would sorely puzzle a Dammara to take two sheep and give him two sticks. All that such facts show is that in some respects the higher receptual life of brutes attains almost as high a level of ideation as the lower conceptual life of man." Mr. Romanes, in a note, goes on quoting Mr. Galton: "Once, while I watched a Dammara floundering hopelessly in a calculation on one side of me, I observed Dinah, my spaniel, equally embarrassed on the other. She was overlooking half-a-dozen of her new-born puppies, which had been removed two or three times from her, and her anxiety was excessive as she tried to find out if they were all present, or if any were still missing. She kept puzzling and running her eyes over them, backwards and forwards, but could not satisfy herself. She evidently had a vague notion of counting, but the figure was too large for her brain. Taking the two as they stood, dog and Dammara, the comparison reflected no great honour on the man." It seems as if Mr. Galton were more anxious, in this comparison, to produce a rhetorical effect than to give due credit to the Dammara. Another African

\* "Inquiries into Human Faculty," by Francis Galton, London, 1883, pp. 114-145.

† "Mental Evolution in Man: Origin of Human Faculty," by George John Romanes, London, 1888, p. 215. The reference is to Galton, "Tropical South Africa," p. 213.

traveller, Sir Samuel Baker, says :\* " All those savages I have actually visited, not only have speech, but also numerals."

Nevertheless, it seems fairly proved that there are savages who, in their rude struggle with the forces of nature to gain a living, have taken little trouble to distinguish separate objects by counting, or to devise names for numbers, but it would be rash to assume that they could not do so if they were taught. Mr. Romanes boasts of having taught a chimpanzee to count up to five; that is, the animal would, when in good humour, give him four or five straws from its mouth on Mr. Romanes naming the words one, two, three, four, or five. " Farther than this," observes Mr. Romanes, " I have not attempted to take her." Perhaps it would have been more correct to say : " I could not succeed in taking her." I myself am not quite satisfied about this accomplishment of the ape. I should say that the idea of numbers could not be proved complete unless the chimpanzee not only would give at the word of command four or five straws, but four or five of anything. Nevertheless, I am not disposed to deny that an intelligent animal like an ape might be taught to count up to five, but had Mr. Romanes tried also to teach figures to a Dammara the wide gulf between the intellect of the man and that of the monkey would soon have been manifest. The Dammara might have needed to begin at five, but he could soon have been carried into combinations impossible for the intelligence of any of the brutes. The fact is that all men, civilized or uncivilized, have a potential capacity for arithmetic, which in the savage as well as in the ignorant often dies uncultivated. This has been proved by experience in missionary schools, where the children of the lowest savages have been taught.

Take the case of the Polynesians, separated by a wide ocean from the civilized nations of the earth. They lead, or, at least, used to lead, a simple life, enjoying the plenty of their sunny isles, with an easy unconcern about property ; no way vexed with toil, and unacquainted with serious mental exertion. These primitive savages were found to have a scanty vocabulary of numerals, but it was found that they had a capacity for arithmetic much beyond the requirements of their ancestors from time immemorial.

In my inquiries on this subject, I wrote to the Rev. Dr.

\* See his letter in Dr. Bateman's " Darwinism tested by Language," London, 1877, p. 176. Baker adds : " They usually count in tens, taking for the base of their calculations their digits."

George Turner,\* who was long a missionary in Samoa. In reply he says: "You are quite right, I think, in concluding that in the very lowest strata of savage life there is a potential faculty for arithmetic which could be cultivated to any extent. At the close of an arithmetic book in Samoa we have added the first book of Euclid. In the Sandwich Islands they have a separate book, embracing the six books of Euclid."

Before being visited by Europeans the Maoris are said to have been able to count up to a hundred; after that they were hazy. Now they have been proved to possess great arithmetical ability.†

Another missionary, Dr. W. A. Elmslie, who has also kindly answered my inquiries, thus writes from his experience in Africa: "Among the Ngoni, where cattle are abundant, I have never met a case where the loss of a beast was known by counting, even a large herd. They do not in practice count their cattle, as they do not count anything, from some superstitious idea that it is unlucky to do so. This does not, however, I think, bear out an assertion that they cannot do so; the strong superstition of the tribe comes in as an explanation."

The following observations made by Dr. Elmslie apply generally to four tribes living on the western shore and upland districts of Lake Nyassa, viz., Ngoni (who are of Zulu origin), Tusubuka, Tonga, and Nyanja.

"The method of counting in all these is very similar.

"1. They can count up to any number, though in practice, according to the requirements of their primitive life, they do not count very far. Any number beyond say twenty they will say is a 'great many,' not because they cannot count, but because they never have occasion to be exact. In counting up, the mistakes they may make in the higher numbers are only the result of inattention and not inability.

"2. They have the names of numerals up to five and the name of ten. The Ngoni have a word for 'hundred,' but it is seldom used. They count thus: 1, 2, 3, 4, 5, 5 and 1, 5 and 2, etc.; 10 (or 'one ten') 10 and 1, and so on. For 20 they say 'two tens,' so that they count by tens.

\* Dr. Turner has published two books which are full of observations of great interest to the anthropologist, "Nineteen Years in Polynesia," London, 1861, and "Samoa a Hundred Years Ago and Long Before," London, 1884. While correcting the proofs I have heard with much regret of the sudden death of this distinguished missionary.

† See paper on the Maoris of New Zealand, in Vol. xix. of the "Anthropological Journal," p. 113.



"3. They use their fingers in counting. They begin with the hand shut, and open out finger by finger beginning at the little finger, and when five are counted they close the fist and proceed with the other hand, and on reaching ten they shut both fists and clap them together just as they say 'ten,' and so on, time after time, carrying in their minds the number of tens so counted.

"4. There is undoubtedly marked capacity for learning arithmetic, and we have children working up to the compound rules. Geometry has not been tried."

Another missionary, Dr. D. Kerr Cross, thus writes, referring to the tribes around Lake Nyassa: "My experience among the savage races of Africa leads me to the belief that they are not nearly so defective in the arithmetical faculty as Dr. Tylor indicates in his 'Primitive Culture.' With me they can easily go up the length of two tens, and indeed somewhat beyond such, if occasion requires. They close the fist indicative of five, strike the double fist for 10, and strike the legs with the closed fists for 20. Seldom do they go beyond this number. As far as I know they have no word for 10 tens, although Dr. Law, in a neighbouring dialect, gives a word. Should attention be paid to them the youth of any tribe can be taught to count with some degree of accuracy, as is observed in our schools."

The Darwinians are accustomed to account for the origin of the superior mental faculties of man by the assumption that they were gradually evolved from an intelligence once lower than that of a monkey through the struggle for existence and the strain of competition. They at first thought that in the rudimentary numerical faculty noticed amongst savages they had lighted upon a stage of mental development not much higher than that of the ape, but when it appeared that in the children of these very savages there was a potential capacity never called into exercise by their ancestors, a difficulty arose under which their hypothesis would not work. Indeed, Mr. Wallace, in his book upon Evolution, devotes a chapter to show that the human capacity for arithmetic and geometry could not be explained by any process of development through the struggle for existence, or sexual selection. Yet the arithmetical talent seems to be a special faculty of the human mind. Though all normal children can be taught to count, some learn quickly, others slowly; some become very expert at figures, others have little aptitude; some men take a delight in working at arithmetical problems, others have a distaste for

them. In general, simple men who have had little schooling dislike arithmetical calculation. I have been told that the fishermen in Prestonpans, who take shares in their boats, when they count their gains do not make use of any ciphering or mental division. If there are seven of them to a boat's crew they all assemble, and the money gained is counted out before their eyes in seven portions, which they take and go away. Mr. Winter writes :\* "It is a characteristic fact that the criminal classes generally distinguish themselves by a remarkable ignorance of the science of numbers. Nevertheless at the Elmira Reformatory they learned arithmetic quickly."

There are instances of extraordinary development of the arithmetical faculty in early life, such as was shown by George Bidder and Zerah Colborn, which partakes of the mysterious, for it appears that these childish prodigies could perform surpassing feats in calculation without ever being taught the ordinary methods devised through ages for the easier working of such difficult problems. This, I think, shows that the arithmetical faculty is different from the methods by which it is cultivated, and that men can work by different symbols and processes from those usually employed. It often happens that those who are very skilful in solving arithmetical questions have no unusual ability for anything else. In framing his system of phrenology Gall arrived at the idea that number was a special faculty, and sought a locality for it in the brain. He fixed it in the frontal lobe above the outer angle of the eye, just below the place assigned for the faculty of music. It is curious that in the mental manifestations in idiocy and imbecility we find that of all human faculties that of music is the best preserved, whereas that of number is the most deficient, yet music seems to have a certain connection with number. A tune depends upon the numerical relation of certain notes to one another and upon their succession in time. Even idiots who cannot speak catch up tunes and hum or grunt them. To be able to learn to speak is a measure in the capacity of imbeciles, but speech may be freely exercised without their being able to count. This deficiency is universal, comprising all classes of imbeciles. The old legal definition of an idiot is "one who cannot count twenty pence." Dr. Abercrombie, in his book "On the Intellectual Powers," commented upon this deficiency, and noted that it extended to

\* "New York State Reformatory at Elmira," by Alexander Winter. London, 1891, p. 139.

cretins. I never saw an imbecile who was expert in figures, though such cases have been described. I should think that such prodigies are mere show cases, who have been taught to master a particular question by an arithmetical formula which after all is not difficult, such as to find out the day of the week on a given day of the month some years back.

Dr. Edward Seguin, whose experience was very great, observes in his book on Idiocy: "The greater number of idiots cannot count three, though among them, or more properly speaking among imbeciles, are found children wonderfully skilled in the arrangement of figures and in calculations of various sorts. This automatic genius does not belong to them as a class, nor imply in its rare possessors any susceptibility to general improvement."

Some cases of great aptitude for figures with imbeciles are quoted in my book on "Idiocy and Imbecility." As already said, none of them came under my own observation. As a general rule, with great pains and great skill in teaching, imbeciles may be brought through addition, subtraction, and multiplication, but rarely through division. Though in most cases it is the more intelligent who learn arithmetic best, I have seen many imbeciles who understood all the ordinary relations of life, could conduct themselves well in society, go about alone, learn to read, and had quite a respectable amount of general intelligence, who, nevertheless, could not work with figures, could not give change for a shilling, and could not multiply by two up to twenty without stumbling. This is not because they do not remember the names, but because they fail to attach any idea to them. In general they may be said to understand numbers as far as they can be seen at a glance, though even then they are slow at counting objects held before them, and are liable to make mistakes through inattention, or through counting the same thing twice over.

In teaching imbeciles numbers, it is best to do so on small objects, like beans or grains of maize; mixing these objects does not seem to perplex them. They reach the idea of numbers through the variety. After they have learned to count a little, one tries to teach them to multiply, and here the haziness of their arithmetical notions is apparent. For example, a boy ten years of age, who can read, and is very observant, knows railway signals, and makes shrewd remarks about people's conduct, will go on thus: "Twice four = 8, three times four = 6." Here another pupil comes to his assistance, saying, "It is 10." "What is twice ten?" Answer, "20."

"Twice eleven?" "6." Four times four is stated to be 12. Another observes: "I told him it was 16, and he would not believe me." Some of them always stick at one multiple. One boy would go on quite right multiplying by 2 up to 8, but here he would rarely say that it was 16. After that he would generally go on right up to twice 12. Another will say "Twice five = 10, three times five = 12." Or "twice four = 8, three times four = 9, three times five = 15, four times five = 16." "How many men are in a jury?" "A dozen." "Well, if three jurymen go away, how many are left?" Answer, "None." Of course these wrong answers are mixed with right ones. In general they show an easy indifference to their failures, but I used to have a pupil who would shed tears when he failed to get through four times four or six times six without stumbling. This was always done with the numbers counted out before him.

I have already described the case of a boy, "aged ten years, who knows all the colours, and is learning the alphabet. He forms an estimate of the character of those around him, and has some sense of moral relations. He talks volubly on childish subjects, but is so deficient in arithmetical power that a year ago he seemed to have no conception even of a unit. He would say that he had three heads, touching his head several times with his finger. This was not because he wanted the word, for he could repeat the names of numbers, as far as twelve at least, without any difficulty. This year, after much trouble, he seems to have mastered the idea of two, and can count cautiously up to three. When he gets to four he is extremely perplexed. If one holds out five fingers to him he will count 'one, one, two, three, four, there is four,' or at another attempt, 'one, two, three, four, five, six, seven,' and the sum total is declared to be eight. This boy is not without imagination. He is fond of arranging pebbles in a line to represent a railway train, showing he can conceive of symbols." This boy died about a year after of exhaustion from frequent epileptic fits. At the time the above passage was written these fits were only occasional. It was noticed that the sutures were still open, and that the brain was somewhat softer than usual, otherwise nothing particular to the naked eye. The encephalon weighed  $55\frac{1}{2}$  oz.

One might suppose that this deficiency of the arithmetical faculty was owing to some injury of a particular portion of the brain, as has been observed in loss of speech through aphasia, but no such lesion has ever been pointed out in the brains of



imbeciles, nor is there, as far as I know, any diseased condition common to all classes of imbecility. The mental inferiority may be due to cerebritis, sclerosis of the brain, microcephaly, epilepsy, or hydrocephalus, yet in all these forms we may presume that there will be a marked deficiency in the capacity for counting. This is perhaps not what one might expect when he sees a problem put into the calculating machine, say, division of high numbers, and which is brought out by the working of the machine with infallible correctness; one is then disposed to think arithmetic an almost mechanical mental operation. As Oliver W. Holmes has happily put it: "The calculating power alone should seem to be the least human of qualities, and to have the smallest amount of reason in it, since a machine can be made to do the work of three or four calculators, and better than any one of them. The power of dealing with numbers is a kind of 'detached lever' arrangement, which may be put into a mighty poor watch." It must, however, be confessed that the power of the calculating machine does not look so wonderful when one understands how it is made and adjusted.

It might be suggested that, since the arithmetical faculty is late in appearing in children, and often so deficient in imbeciles, it would be one of the first to disappear in the downward process of dementia. This, however, does not seem to be the case. Through the kindness of Dr. Clouston, I had an opportunity of examining a number of patients suffering from progressive dementia and general paralysis, and the arithmetical faculty did not seem to be more impaired than other faculties; indeed, it seemed as if it were less so. Patients so far gone in dementia that they could not, or would not, take the trouble to select or put on their own clothes, nevertheless added columns of figures with tolerable accuracy, and correctly worked sums in reduction, proportion, or other ordinary questions in arithmetic.

In a case of general paralysis it was a contrast to see a man, after making the most senseless and immoderate boastings, sit down and work in a creditable manner a question in arithmetic. While all his conversation savoured of extravagant delusions, his arithmetical exercise was correct and neatly done.

One man, in the middle state of general paralysis, gave me an order in pencil for £4,000 in paper and gold. He said an actor, on whom he wished to draw, was a billionaire. When I asked how this actor made so much money, and how much he was paid a night, he replied a hundred thousand pounds,

which he said were paid in gold. I asked him if he carried this money with him when acting, when he said "Yes."

I asked him if this were not too heavy. He said "No." I then got him to calculate the weight of 100,000 sovereigns, counting each four as equal to one ounce. This he did quite correctly, but nevertheless he would not admit that the sum was too heavy. Although general paralytics talked of numbers in a wild way, it seemed to me that, when they could be induced to sit down and make a calculation, they understood the relation of figures to one another. Two of them were expert and quick in arithmetic. The demented patients in general were easily fatigued, but added figures correctly, though slowly. One patient was very diffident to begin. He had forgotten his arithmetic. I asked him what was twice four, and he said eight. This encouraged him. I then asked him to add a column of figures; the first were seven and five. He said he did not know. I said, Is it not 12? He replied, doubtfully, "It used to be." After this I got him to add a column of eight figures, which he did correctly, but very slowly.

In the downward progress of dementia the higher mental faculties do not seem to be affected in any regular succession. To take advantage of a figure used by Dr. Savage, the dissolution of the mind resembles the decay of an old house left to ruin; sometimes one part of the building falls in, sometimes another. In looking over the literature of insanity, I cannot find that the impairment of the arithmetical faculties in dementia has received attention, but those striking cases in which the patients show a morbid fondness for counting have not escaped observation. Such disorders fall under the head of *Grübelnsucht* or *Folie du doute*. The mind is seized by a procession of numerical ideas which escape beyond the control of the will. Going along the road he counts the swallows which fly overhead, the men and women who pass, how many white horses there are, and so on. Emminghaus\* tells us of a man who, being asked in company how he liked a song, answered: "Do you know how many letters the song contains?" The same person in walking used to count how many steps he took. Cullerre, who has written a paper† on this peculiarity, which he calls *Arithmomania*, finds it commonest amongst epileptics. He defines it as the impulse to combine numbers, and especially to calculate the divisions of time as seconds,

\* "Allgemeine Psychopathologie," Leipzig, 1878, p. 186.

† "Les Epileptiques Arithmomanes, Annales Medico-Psychologiques," Tome xi., N. 1, p. 25. See also B. Ball, "Leçons sur les Maladies Mentales," p. 449.

minutes, hours, days, months, and years, and in general to work with figures apart from any connection of profit or interest. This affection is accompanied by an indefinable mental disturbance which, though it may be disagreeable, is not so painful as other forms of dominant ideas in which the emotions are more or less affected.

Is the inherent faith which we have in our perceptions of number ever deranged in insanity? Does a lunatic for example ever believe that 2 and 2 make 5? M. Delboeuf\* thinks so. The only instance which he gives is taken from a dream, but dreaming certainly closely resembles some kind of insanity. "One night," he says, "I dreamed of a German café where I had taken a glass of beer for which I had to pay  $37\frac{1}{2}$  centimes, the value in French money of 30 pfennige = 1 franc 25 centimes. I approached the counter and put down first a piece of 20 centimes, then one of 10 centimes. The woman before whom I put down this money did not seem satisfied. I was astonished. 'Madame,' I said, 'do 20 and the half of 20 not make 37?' The woman did not seem to comprehend my reasoning; the waiters and others came up and supported me, and at last she ceased to insist. I quitted the café wondering at the singular aberration of a shop woman who could not see that 20 and the half of 20 do not make exactly  $37\frac{1}{2}$ ." Here, it may be observed, that the woman at the counter, who refused the incorrect sum, was a portion of M. Delboeuf's own personality; perhaps one side of his own brain refused to partake in the error of the other hemisphere!

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*Notes Descriptive of a New Hospital Villa recently erected in the Grounds of the York Retreat.* By ROBERT BAKER, M.D.

For many years past the Retreat Committee, whilst constantly improving the structural condition of their hospital, have entirely ceased from extending it by the former practice of adding wing to wing and corridor to corridor.

Instead of doing this they have erected various villas in their grounds with all known adaptations for the prompt treatment of the insane.

This plan of having a variety of small hospitals in different parts of the estate is manifestly a most advantageous one, for whilst the power and resources of the parent hospital are

\* "Le Sommeil et les Rêves," "Revue Philosophique," Octobre, 1879, p. 356.







WEST VILLA, THE RETREAT, YORK.

## GARDEN





always available, separation and isolation of recent and acute and curable cases from the inevitable annoyances of a large asylum are most desirable.

I propose this afternoon to describe to you the villa hospital which has just been completed, and which has this month been occupied by patients.

It has been designed by Mr. Burgess, of London, and carried out under the supervision of Mr. Taylor, of York, and provides accommodation for *twelve to fifteen persons*. It is constructed in the English half-timbered domestic style, the lower portion being of Leicester bricks and the upper portion dashed plaster work, the gables being half-timbered, and the whole of the woodwork both within and without of oak; the windows are filled with half-inch plate glass. The roof is covered with Staffordshire red tile work, the campanile tower being used as a central extracting shaft. The building is one-storey in height, and has been kept low in order to interfere as little as possible with the light and air to the main building. Owing, however, to the rapid fall of the ground the front of the building appears tolerably elevated, and a commodious terrace has been formed by the earth obtained from the necessary excavations.

As will be seen by the accompanying sketch, the new west villa has been so planned both as to locality and arrangement that *one-third, two-thirds, or the whole of the building may be used in connection with either the male or female side of the Retreat*, involving necessarily provision of duplicate accommodation of bath-rooms, lavatories, etc.

A separate sitting-room and bedroom is provided for six patients, there being one associated sitting-room and one associated bedroom. The sitting-rooms—each 17ft. by 14ft.—are situated towards the south and west, and command pleasant views of the country around. The single bedrooms face into the gardens. The connection with the Retreat building is by a passage, 7ft. wide, enclosing two flights of easy steps. The building is warmed by air supplied fresh from the outside, and driven by engine and fan through chambers heated by hot-water pipes, and admitted into the rooms and corridors through the gratings in the plinths, each under special control. The vitiated air is removed from the rooms and corridors by central openings in the ceilings, communicating by zinc tubes with the extraction shaft, which is heated with steam pipes. Open fires are also provided in each room and in the corridors.



The electric light has been installed throughout the new villa, and answers most satisfactorily. The installation comprises all the modern improvements in incandescent electric lighting, combined with some special adaptations desirable in a hospital for the treatment of the insane. The plant consists of a steam engine, dynamo, storage-battery, and 60 incandescent lamps of 16-candle power each. The steam engine is of the horizontal type of six-horse power, and has been placed entirely separate from the villa, so as to prevent the possibility of any inconvenience from vibration. The dynamo, placed in the engine-room, has the power or output calculated at 6,000 watts (one lamp being equal to 60 watts), which is sufficient to charge the storage-battery up to its full capacity, and supply current for driving a ventilating fan by an electric motor; also to run 60 or more lamps of 16-candle power direct. The accumulator or storage-battery is made up of a series of cells, which, when fully charged, will serve to run 60 lamps at their full power for ten hours. Each cell has been furnished with a delicate recording instrument for showing the state of the battery at all times, and there is a special arrangement under the control of the switch by which the voltage or pressure of the series of cells can be regulated within certain limits at pleasure. The accumulators have been divided into two equal parts, and may be considered as two separate batteries, each capable of running 30 lamps for ten hours. These are so contrived that one battery may be used singly or both conjointly, thus allowing repairs to be done to one set of cells, leaving the other available for running half the number of lights.

The rooms and corridors have all been lighted by lamps of 16-candle power, in two sections, one serving for the lights in the rooms, which, including some single lamps, have been arranged in groups of two, three, and four pendants fixed near the ceiling, and enclosed in a circular plate-glass case, having a solid base of convex form, and silvered over to reflect the light to all parts of the room. The other section serves to light the corridors and lobbies; this is done by single lamps suspended from the ceiling with flexible cords. The whole lighting is controlled from a switch-board so constructed that the light in two rooms and the corridors may be regulated from full-lighting power by three gradations down to a dim, subdued light. The switch-board is placed in a position only accessible to the officials, and there is a special switch for turning on or off simultaneously all the lights in the rooms,

retaining a dim degree of light in the corridors only. In addition, there is a switch placed near the door of each room in the corridors for controlling the light within each room by a special key.

The total cost of the building, with its heating and electric lighting, is £4,000.

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## CLINICAL NOTES AND CASES.

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*Some Unusual Cases of General Paralysis.\** By BONVILLE BRADLEY FOX, M.A., M.D., Brislington House, Bristol.

The first case was a typical and well-marked one of remission, occurring in the subject of a maniacal attack of undoubted early general paralysis.

CASE I.—B., a male, married, æt. 35, admitted December 29th, after an illness stated to be of only 14 days' duration.

*Previous history.*—Had entered the army 13 years ago (joining his regiment in India). Before this he had contracted syphilis, had been treated, and supposedly cured. While in India he had several attacks of fever, which in four years time caused his return to England. On the voyage home unmistakable symptoms of secondary syphilis appeared, from which he recovered, and subsequently married. He gave up the army, and went into a family business as accountant and cashier, being utterly without the education and training necessary for such a post, and though in general matters clever, in the details of this particular calling he quite broke down, and lately complained that the mental strain was intolerable, while his figures were found to be in confusion.

On admission he was maniacal, impulsive, and violent, a magnificently made man, well able to use his excellent muscles, and knocking the attendants over like so many ninepins. He was very loquacious, incoherent, and exalted, asserted that he was the second son of God, possessed of the world and of unbounded wealth; was benevolent, and offered gifts freely of from £10,000 to £20,000. He suffered much from insomnia. Physical signs of general paralysis practically absent. The pupils were normal. No fibrillary tremor of lingual or facial muscles is recorded. There was no elevation of temperature. The organs generally were healthy. The first development of the disease was highly suggestive. He had been most unusually voluble at a dinner party at his own house, and when his wife remonstrated with him, he burst into tears.

\* Read before the Medico-Psychological Association, May 1st, 1891.

During the first three weeks of residence here no great change occurred, save that in about a fortnight he began to wet his bed at night. Scruple doses of bromide seemed to assuage the mania temporarily, but it frequently flared out again, and he committed most reckless, unprovoked, and violent assaults, flinging knives at those near him, and punishing the attendants most terribly when they interfered. The exaltation advanced. At this time he recognized and deplored his loss of memory. Calabar bean in gr.  $\frac{1}{6}$  doses was tried, but for too short a time to be a fair test. About a month from admission he was placed upon small doses of iodide of potassium (gr. iii.), in conjunction with the ammonio-citrate of iron, to which some hydrobromic acid was subsequently added, and a vast improvement took place, so that on February 27th, just two months from admission, he was much more rational and tranquil. This treatment was continued until April 1st, ten weeks from its commencement, when it was dropped, as he seemed convalescent. In the course of that month he was allowed to visit his friends, evidently prematurely, as he returned in seven days, complaining of pains in his head, and of insomnia. These were relieved by the quiet of the asylum and hydrobromic acid. Very shortly we sent him for six weeks to our seaside house. At the end of that period he returned, to all appearance recovered, and was discharged just about six months from the first development of his malady.

In about ten weeks he wrote us a letter interesting for two reasons. In the first place it was absolutely free from the various peculiarities of style to which we are accustomed in general paralysis. But while the manner is excellent, the matter is ominous, for he complains of a fresh symptom in that he finds his limbs unsteady and untrustworthy, so that while he can play tennis, the fact of knocking one foot against the other was sufficient to throw him down. At this time his mental faculties appeared unclouded, though they were not exposed to the test of any strain or work. He mixed in society and held his own. The details of his subsequent history I cannot give with exactitude, as he left our part of the world. But I know that before long the disease returned, and he died of well-marked and confirmed general paralysis.

This case is an example of the fact that it is in the maniacal rather than the melancholic or weak-minded varieties of general paralysis that remission occurs.

Arising from it is a question that I would put to the meeting. Do any of you know of any undoubted cases of general paralysis in which perfect and permanent recovery has taken place? Not a few are reported, but investigation suggests either that the original diagnosis was open to doubt, or that recovery was only temporary, or else incomplete, certain

physical defects remaining, such as labial tremor and thickness of articulation, or, more rarely, some childishness of mind. Even in Dr. Macleod's cases I should hesitate to pronounce the results perfect cures, and though Dr. Savage\* has recorded a case in which a man actually resumed hard work for a year, he ultimately relapsed and died. That the physical rather than the mental defects should remain seems to be in accordance with the fact that *ab initio* physical symptoms of general paralysis may exist for long, even for years, without the appearance of the characteristic mental symptoms, while the converse is hardly ever true, though ordinary mania may be a precursor of general paralysis.

The possibility of such considerable remission and disappearance of nearly all the typical features of a disease should, I submit, encourage us in our search after some means to establish the improvement, to convert the temporary convalescence into the permanent recovery. Where a disease will, so to speak, do so much for itself, it does seem a reflection on medical skill that it will only enable us to tell the patient's friends that his recovery is absolutely delusive, and that the apparently healthy man must shortly die, probably a lingering and loathsome death by inches.

What are the pathological changes that occur in such a case? Dr. Clouston† believes that prior to the development of any marked mental symptoms recognizable convolutional lesions have occurred, developed in some intensity, and involving a certain number of convolutions. Further, that if physical motory symptoms are absent, it is because the area of the disease is limited to the anterior cortex, and, at the time, spares the region of the motor centres. In nature these lesions are "active congestion, and incipient organic change." During remission the former passes away, the latter remains, quiescent temporarily, but biding its time to awake into renewed activity, and to become a focus of fresh mischief. Dr. Bevan Lewis‡ describes the early vascular changes more elaborately. He finds turgescence of the vessels of the pia, and engorgement of the cortical arterioles. Proliferation of nuclei in the lymph sheath surrounding the vessels is marked. Diapedesis of the fluid contents of the vessels into the lymph channels and neighbouring tissue occurs, while the former are crowded with escaped leucocytes. The resulting damage to

\* "Insanity and Allied Neuroses," p. 304.

† "Clinical Lectures on Mental Diseases," p. 371.

‡ "A Text Book of Mental Diseases," p. 494.



the vessel partakes of both a vital and a mechanical nature; vital in so far that the tunica muscularis is paralyzed, the elasticity of the vessel impaired, and blood stasis, aneurismal dilatation, and ultimate rupture are favoured; mechanical, in so far that the uniform support of the adventitia is impaired, while the nuclear accumulations encroach on and compress the lumen of the vessel. Without following him further it will be admitted that even after the subsidence of active inflammation, the vessels originally affected are unlikely to resume their former healthy condition, and probably remain as weak spots in the brain.

The next case is interesting solely from an ætiological point of view.

CASE II.—K., æt. 49, admitted January 12th, a male, married for 18½ years, 11 children, the wife miscarried with twins last October. Family and personal histories clear. Formerly a cool, collected, precise, sober, and particularly neat man, who had always enjoyed very good bodily health.

On December 27th he was thrown out of a trap on to his head. His wife asserts that he was in perfect mental health up to the time of the accident, and that some unusual irritability which had been noticed was simply due to a heavy cold, which his previous excellent health unsuited him to bear patiently. Whether this was or was not the case, it is certain that a day or two after the accident various symptoms suggestive of general paralysis appeared, so that if the disease had not an exclusively traumatic origin, its development and first manifestation at least were determined by the accident. The first day after the fall he complained of pain in his head, and of a heavy sensation there when he stooped. After the first day he made no complaints, but said he was never better in his life. Irritability greatly increased. He became contradictory and arbitrary, threatened to assault his wife, and from being particularly clean and tidy, he degenerated into a sloven. Appetite was capricious; when he ate, he did so ravenously. Exaltation appeared in a day or two, the earliest delusion being that he had come into money and bought a house. Sleep fitful, often absent, or else he started in his sleep.

On admission, 16 days after the accident, physical and mental symptoms of general paralysis were easily recognizable. Although the pupils were equal and fairly active, the face was pale, sallow, and suggestively cachectic; the muscles of expression and those of the lips had lost tone; the muscular grooves were partially obliterated, and there was tremor, especially in the tongue. Articulation was muffled, and words were clipped or slurred. The patella-tendon reflex on both sides was exaggerated. There was a scar on the scalp 2½ in. long, on the vertex, from a point

slightly behind and to the left of the centre of sagittal suture towards temporal region. It was not yet healed, and was surrounded by some little œdema. Pulse 90, and full. Mentally, for the first 24 hours he showed no delusions, but was untidy and dirty, and though inveigled here by his family on very false pretences, he expressed no surprise or resentment, but was most jolly, garrulous, and the personification of restlessness. He mis-stated his age as 47 instead of 49. It is needless to describe his case in detail for the month he was under our care. Exalted delusions of the wildest and most typical description appeared in a day or two, and either became amplified, or replaced by still more absurd ones every 24 hours. He grew increasingly dirty, and passed water anywhere while awake, and always wetted his bed during sleep. His every action was wild and incoherent, and his conduct and conversation most salacious. He decked himself out with leaves. Once there was an outbreak of frantic unreasoning violence. Sleep greatly improved. There never was any abnormality of pupils during this month, but tremor and blankness of expression increased. At the end of this period he was transferred to another asylum, and after residing there for about two years he became sufficiently well to return home, where, however, he died in the usual manner and time.

Such rapid appearance of pathognomonic paralytic symptoms, not only physical, but also mental—so many, indeed, as to make diagnosis assured—directly after the injury is very unusual and remarkable. Although Griesinger\* mentions that in the case of most severe injury to the head, insanity results at once on recovery, in the vast majority of recorded instances years have elapsed before its manifestation. This man's injury, moreover, could not be described as severe, and was limited to a scalp wound, and some concussion. It may be objected that the fall was merely the exciting cause, that the irritability noticed a day or two previously was not due to a cold, but to early general paralysis, which may have been developing for some time, and that the congestion caused by the blow merely acted as a spark to a train of gunpowder already laid. I would suggest that the drawback to such explanation is its hypothetical character. The man was able to discharge his duties up to the day of the accident; he had shown no signs which raised suspicion, and as far as other predisposing causes of general paralysis are concerned, with the exception of possible uxoriousness, a factor of very varying and doubtful efficiency in different subjects, all were conspicuous by their absence—no worry, overwork, anxiety, alcohol, or syphilis.

\* "Mental Pathology and Therapeutics," New Sydenham Society, p. 176.

The points of interest in the third case are its history and inception, its termination as far as we were concerned, and its association with a physical malady.

CASE III.—C., æt. 37, male, married for six years, with one child, five years old. Family history not clear; there had been phthisis on both sides, and though no near relatives had been insane, his father had died of diabetes, and his brothers were intemperate. Previous history poor; he had been one of those medical students who drift on for years without obtaining a qualification, and had led a fast life. Is suspected of syphilis by a near male relative, but, whilst admitting much, he himself denies this. Has been sober. Six years ago he received a bad blow on his head and neck, and ever since has been a changed man. This was immediately before his marriage, and whereas formerly he had been the reverse of continent, he speedily experienced a great diminution in sexual vigour, as well as in desire, and found matrimonial claims hard to satisfy. His marriage was not a success in any way, and added to his anxieties by involving him in pecuniary worry, to which he was unaccustomed. He felt depressed, and suffered much from lightning pains in his limbs. Between six and eight weeks before admission he was seized with agonizing pain down his back. It was rubbed with opium and belladonna, and the pain passed off as rapidly as it came on. A week later he had a similar attack, this time affecting his head. A year ago mental alteration was noticed. He became captious, irritable, and unlike himself; more recently he had been depressed, hysterical, and high-spirited by turns, and occasionally violent. Exaltation appeared a month before admission.

On admission, on June 18th, he was anæmic and cachectic-looking. Pupils contracted and sluggish, the left very slightly the larger. Patella tendon reflex absent on both sides. With feet together, and eyes shut, a little disposition to totter. He complained of lightning pains down his legs, which he said had lasted off and on since his accident six years ago, and of a sense of abdominal constriction, a "girdle pain," which had only recently developed. He stated that he was passing water with a much less forcible stream, and that there was dulness of sensation in both ulnar regions, but no anæsthesia was detected on testing. His complaints, too, as to defective eyesight seemed unfounded. There was no heat, pain, or tenderness over scalp or spine. No tremor of any muscle. Articulation distinct. Skin greasy. Temperature normal. Urine neutral. Sleep and appetite good.

Mentally he was exalted and jolly. Said it was a great shame to have sent him here, but still he was glad to have come on account of the great good he should do the patients almost involuntarily by the mesmeric or magnetic power which he felt permeating his whole system, and which he exercised *volens volens*.

Asserted he had made his fortune in a day, was going to stand for Parliament, and would enrich us all. His handwriting was shocking, the most impossible misspellings were made, and whole words were dropped out of sentences, so that they became quite unintelligible. His memory was so bad that he misstated his age by ten years. He was clean, but stuck a feather in his hat, and fraternized with the most demented patients.

The case seemed to be one of general paralysis supervening upon tabes dorsalis, the symptoms of which latter had existed for some time previously. As such patients often are, he was fanciful and hysterical, but only those symptoms have been set down which were confirmed by tests, or by the report of his relatives. For the first twenty-four hours he only spoke in a whisper, but the application of the interrupted current to the outside of the larynx at once restored his full voice, to his great delight.

He was placed on arsenic and iron, and went on well enough for six months. He complained but little of tabetic symptoms, and was free from the characteristic pains. His general health on the whole improved, but though he gained weight he lost physical power. The mental symptoms of general paralysis were firmly established—all sorts of grandiose delusions, and much emotional instability. At the end of eight months' residence he complained greatly of weakness, walked feebly, and though he tried to join in the dances by straddling his legs, and so increasing his base, he often tottered, and occasionally tumbled down. He was ordered bromide of potassium and quinine, and seemed to improve under this, and lost no more ground until June, just twelve months from admission.

He then had two slight convulsive seizures, chiefly affecting the right side. They were followed by excitement, which was subdued for a time by bromide, but in a fortnight's time such frantic, destructive mania occurred, that he had to be placed in the padded room. Physical degeneration set in. The catheter was frequently needed, and the urine became albuminous. Cellulitis appeared in both feet, and spread both in superficial extent and in depth. Neither local nor general treatment made any impression. In a few days' time not only were the muscles of his legs almost in ribbons, but every part of his body in the slightest degree exposed to pressure assumed an inflammatory tint, which deepened rapidly into a slough or bag of pus. The mania had by this time burnt itself out, but had left a terrible amount of exhaustion, which no form or quantity of stimulant appeared to affect. His physical condition, indeed, almost hourly degenerated, and neither had we, the consultant we called in, nor his family, any doubt but that he had only a day or two to live. As his friends were most anxious he should not die in an asylum, his bed was put in an invalid carriage, and he was driven into Clifton. He left us on July 19th, one mass of mortifying corruption, and from that moment began



to mend, and before very long was walking about again, comparatively well in body, and quiet, if silly in mind.

The chief lesson this *dénoûement* taught me was that in general paralysis one should never prophesy until after the event. It corroborates Dr. Savage's dictum than general paralytics may temporarily recover from almost any symptoms, though at the same time I do not consider this case on all fours with his,\* in which a terrible sloughing carbuncle on the neck seemed to act as a revulsant, and to benefit the patient. Our patient improved, not I believe, on account of, but in spite of, his physical symptoms. These, the sequel of epileptiform seizures, most probably marked the transitional period when the disease was passing from the second into the third stage. Change of air, as we know, sometimes works wonders, and did so here, tiding the patient over a crisis that was apparently hopeless, but which, safely passed, landed him in the calm of dementia.

The history of the disease is worth considering. Did the fall six years before lay the foundations independently of both tabes and general paralysis, of which the symptoms of the latter took longer to develop? Is this, in fact, another case of traumatic general paralysis, or was its origin due to quite different causes, to increased mental worry and anxiety, coupled with increased physical calls on a diseased and decaying organism? The latter I believe to be the true view, and this leads to what is really the most important practical question in such cases, viz., the association of tabes dorsalis with general paralysis—in other words, does tabes predispose to general paralysis? Not invariably so, of course. We see ataxic persons develop other forms of insanity from which they may perfectly recover, but my belief is that the association is too frequent to be accidental.

This is such an important matter, if only from the point of view of prognosis, that I trust members will give us the full value of their experience and opinions, and will suffer me to remind them briefly of those held by good authorities. Maudsley† asserts confidently that in some cases the disease begins in the cord, and spreads to the brain, commences as tabes dorsalis, and ends as general paralysis. Savage‡ records cases of general paralysis supervening not only on old tabes, but also in persons who have suffered from other

\* *Op. cit.*, p. 323.

† "The Pathology of Mind," p. 435.

‡ *Op. cit.*, pp. 286, 317.

nervous lesions, such as infantile paralysis. He notices that the pathological changes in the cord may be confined to the posterior columns, or to the lateral or antero-lateral, or may extend to all the tissues of the cord equally, so that pathology supports the idea of extension as far, at all events, as the cord is concerned. Mickle\* quotes cases and opinions by Foville, Westphal, Falret, and other Continental observers in support of the thesis that "true general paralysis may begin by a propagation from the lesions of true locomotor ataxy." Clouston† goes a step further, and asserts that general paralysis may not only begin in the cord as tabes, but also in the nerves of special sense, or in a peripheral nerve, and while not prepared to admit the development of general paralysis by a simple process of propagation, he suggests that it is quite possible a diseased process of one nature, advancing along the cord, may assume a different nature on reaching the different and higher structures of the brain, just as inflammation, spreading from periosteum to bone, changes its character in some respects. He mentions further a significant fact, viz., that in these so-called tabic cases the adhesion of pia mater to convolutions is over the base of the brain and cerebellum, rather than over the vertex, the usual position in ordinary general paralysis. The latest observer, Bevan Lewis,‡ admits that emphatic testimony is borne clinically to the close alliance if not absolute identity of the morbid processes underlying general paralysis and tabes dorsalis, but denies that general paralysis arises from tabes by an ascending change, by propagation through direct continuity of diseased tissue. He asserts that hitherto no such actual continuity has been demonstrated, and attributes the secondary changes to an angio-neurosis, to vaso-motor agency operative upon nervous tracts in physiological sympathy with their higher centres. But this explanation, though comprehensible enough in those cases in which spinal symptoms have appeared after or with the cerebral, does not, I confess, quite satisfy me in such a case as the present, where for years tabetic symptoms preceded any mental and cerebral ones.

On the whole the balance of evidence seems strongly in favour of some connection between tabes and general paralysis, even if the exact pathological nature of that connection is not precisely clear, and indicates that in some cases tabes may undoubtedly act as a predisposing cause.

\* "General Paralysis of the Insane," p. 82.

† *Op. cit.*, pp. 366-7.

‡ *Op. cit.*, pp. 502-4.

The last case is one of general paralysis, with melancholic delusions, in which at first correct diagnosis was obscure.

CASE IV.—W., æt. 56, a yeoman in easy circumstances, of good family and personal history. Had been sober, cheerful, and free from all injuries or shocks. A bachelor, who has had no real worries of any sort, and though he has kept a woman at some distance from his home, it is not suggested that in any way she contributed to his insanity. Some few months ago he had two slight seizures, which his doctor thought probably epileptic. Mental change has been noticed for three months. Believed that he was "overlooked," that the evil eye was upon him, and that his vital powers were wasting in consequence. On admission, on December 19, he was very emaciated. *Bruit du diable* was audible on both sides of his neck, but there was no other anæmic symptom, and examination of the organs returned negative results. Pulse 92, but regular and strong. Pupils normal. Skin soft and smooth. No muscular tremor. Articulation clear. No cachexia. Cheeks ruddy.

Mentally melancholia, with delusions, and so great restlessness, it deserved sometimes to be called "agitans." He was hardly ever still, but drifted about the rooms, picking his fingers, pulling at his clothes, rubbing one hand over the other, moaning "Oh! dear! Oh! dear!" in a gradual crescendo that frequently rose to a shout. Sometimes he refused food, sometimes bolted it. When quiet, he was much too much so, sitting stolidly silent with his hands in his lap, heedless of everything. He was in perfect terror from a belief that he had been "overlooked," or bewitched by a certain woman, and though in such a belief he may not be quite singular among natives of Somersetshire, he fancied that she could similarly influence his relatives who were thousands of miles away. He fumbled a good deal in his capacious breeches pockets, and occasionally undressed, careless as to exposure, but there was no evidence of actual masturbation. He fancied quite wrongly that he passed his fæces in his clothing, and asserted that castration would relieve all his troubles. He retained his water all day, and said he could not pass it, but when taken to the urinal, he passed it excellently. Whether hallucinations were present was uncertain. He once said that he saw a tame magpie eating the last portions of his father's body. However greatly agitated, he was never violent. He could walk excellently when he chose. His sleep was very bad.

This condition continued for a month, and I submit that so far there was no certainty at all of general paralysis, although one might have considerable suspicions. Neither morphia nor quinine, with paraldehyde as hypnotic, did any good, and a month from admission he for the first time wetted his bed. During that period he became more and more frantic with terror. For the

next two months he was on the whole calmer, though at times quite delirious with fear and apprehension. On March 5th, while out walking, he suddenly bolted, and ran for nearly two miles before he could be stopped. He could give no reason for this action, but between 4 and 7 p.m. had 15 epileptoid seizures, most of which were slight, and confined to mere muscular twitchings, but the two or three latest fully developed, and accompanied by the usual convulsions. He could swallow, and chloral, bromide, and belladonna were given freely until 3 a.m. the next morning, when the fits stopped, and the medicine was diminished. For the next week his condition was bad. No recurrence of fits, but there was diarrhœa—all evacuations being passed under him—and tympanites. The catheter was occasionally necessary. His pulse was 108, intermitting every 20 beats, and the temperature was elevated constantly between two and three degrees. He was utterly lost, and so helpless that he could not even sit up, much less stand, though a bed sore threatened over the sacrum. By March 25th he was able to be up and dressed, was conscious, composed, and took plenty of food. Under digitalis and quinine pulse and temperature had returned to the normal. He rarely spoke, but the mental complexion was melancholic, though he did not mention his delusions. Although he ate well, and took quinine and Ol. Morrhuæ, he had greatly fallen away in flesh and strength, though he could walk about. A bed sore had formed rapidly over the sacrum, as large as the palm of a hand, and although the granulations at the peripheral part were vigorous, there was a terribly deep slough in the centre. Moreover, a second large, if superficial, bed sore was appearing behind the right trochanter. By the end of the month there could no longer be any doubt that he was a general paralytic. He was dull, confused, and vacant, passing evacuations into bedding and clothing; taking most freely all sorts of food, stimulants, and tonics, but rapidly degenerating; very tremulous generally; his tongue, one mass of tremor, was protruded on his lower lip from a mouth that was opened with a jerk. His pupils were unequal, the left being the larger; his skin greasy; his urine phosphatic. Such a combination of symptoms, assisted by a knowledge of the course of the disease, and of his former "visceral" delusions, made diagnosis easy.

Matters went on for another week. Although supplied with every nutritious article of food imaginable he rapidly emaciated, and in four days lost 2lbs. No medication had any effect on his general health. Yet with all this the bed sores pursued the paradoxical course not infrequently seen, and while a fortnight ago they rapidly developed without any sufficient local cause, they were now steadily improving. Tremor increased. There was a slight trace of his former melancholic delusion.

On April 6th, nearly four months from admission, and about seven from the commencement of any mental change, epileptiform



fits of a violent nature recurred—the *status* was well marked, 12 occurring between 9.30 a.m. and 3 p.m. Considerable doses of bromide and chloral stopped them, but his strength was spent, and though he freely swallowed brandy, ether, and ammonia, there was never any reaction, and he died, collapsed, two hours after the last fit.

A previous attack of much slighter convulsions had shattered his strength and physical powers, and there was little left to resist such an aggravated recurrence. A post-mortem was refused.

As has been suggested in the notes, the diagnosis was the chief point of interest, and I fail to see how within the first two months of residence any certainty could have been arrived at that the case was not *melancholia agitans* pure and simple. Whether, if life had lasted longer, the case would have proved an instance of that *folie circulaire* in general paralysis, that alternation between the gay and dejected states described by recent writers, can only be a matter of surmise. It may, however, be pointed out that, while Baillarger has noticed that in general paralysis there is a special hypochondriacal delirium, with an enhanced tendency to early-occurring gangrene, Mickle\* has not found such tendency in cases in which the hypochondria was temporary or intercurrent. Our patient was an example in point. His ideas, as long as they existed at all, were certainly hypochondriacal or melancholic—the distinction I believe to be merely one of degree, and of little practical importance—and in him gangrene was a prominent and early symptom. Associated with it was most rapid wasting, concurrent with excellent appetite, and careful dietary. “Visceral delusions” were conspicuous—his vital powers were wasting, his lungs and liver had been extracted, and he had ideas of *fæcal defilement*, etc. In my experience of these cases some such delusions sooner or later appear. Voisin has described three varieties of such delusions in the melancholic general paralytic—(i.) Ideas of obstruction of organs; (ii.) Denial of existence; (iii.) Micromania, idea of reduction in size.

Terror, too, is a frequent and prominent symptom, referred by Maudsley,† though not in connection with general paralysis, to disorders of organic sensibilities. To these the sympathetic system ministers; they are essential conditions to the physiological unity of the organism, and once affected, the patient must indeed feel as if the very foundations of his being were giving way, and be horror-stricken accordingly.

\* *Op. cit.*, p. 24.

† *Op. cit.*, p. 369.

What, it may be asked, are the circumstances that determine the mental complexion in the cases of melancholic general paralysis, that produce such a contrast to the common exalted type? The answers are most various:—

Sex, says Dr. Wm. Wood,\* the female predisposing to melancholia.

Original temperament, says Dr. Maudsley,† on an extension of the principle “in vino veritas;” but his theory of disorder of the sympathetic might surely well be applied.

Dr. Savage,‡ on the other hand, has not found the characteristic pathological changes in the sympathetic, described by two French writers as occurring in the cervical ganglia.

Dr. Clouston§ believes that in all such cases there is some organic visceral disease, generally phthisis or pneumonia, which transmits painful or depressing sensations to the cerebrum.

Other writers have referred such delusions to intestinal diseases.

Dr. Bevan Lewis|| describes such ideas as frequently associated with tabetic general paralysis.

The decision of the question I must leave to the meeting. For myself, in the absence of a P.M., I do not like to assert quite positively that there was no disease of the viscera in this case, but will only say that, though I searched diligently and often for it, I failed to find it.

Opinions are divided too as regards the prognosis in such cases, but the weight of evidence goes to prove that our patient was an example of a general rule that general paralysis of the melancholic type runs a swifter course than the maniacal or demented varieties.

My paper has extended to such dimensions that other interesting questions suggested by these cases must be omitted, such, *e.g.*, as the relationship, (if any,) and influence of syphilis on general paralysis, the hereditary kinships of general paralysis, the factors that influence prognosis in ordinary cases, etc., but I should like very shortly to give our experience of treatment. Such expedients as counter-irritation, revulsants, and bleeding have not been tried. In active mania opiates have somewhat failed, and I would rather rely on free purgation, prolonged warm baths, and largish doses of digitalis. In the ordinary run of cases, without active symptoms calling for individual

\* “Brit. and Foreign Med.-Chir. Review,” July, 1860, p. 198.

† *Op. cit.*, p. 441.

‡ *Op. cit.*, p. 350.

§ *Op. cit.*, p. 375.

|| *Op. cit.*, p. 513 and 518.

treatment, I have utterly failed to find anything like a specific, and cannot be sure that much benefit has accrued from physostigma. Of veratrum I cannot speak. More trustworthy appear to be tonics, such as iron in the form of steel or Blaud's pill, and arsenic and quinine. In epileptiform seizures, especially in anything approaching the *status*, we rely on bromide and chloral given in combination—by the mouth if the patient can swallow, if not, by the rectum; and they are persevered with until the condition is relieved. While fully aware of their depressing influence, and of the increased inco-ordination ascribed to their use, these dangers are surely not comparable to those arising from prolongation of the *status epilepticus*, and I know of no remedy their equal in controlling this. Of course their effect must be watched, the patient frequently visited, and digitalis and diffusible stimulants freely given on the first indication. Cases in which syphilis has preceded the disease—not to speak more definitely—have been treated by courses of mercury and iodide, and I am bound to confess without much benefit.

In the later stages of the disease we have found patients most susceptible, not only of any cold, but of any considerable heat, and on a hot summer day they do better in a cool, shady room, than out of doors, until towards evening.

In conclusion, I would summarize the foregoing thus:—

Why despair of curing early general paralysis? Cases of considerable periods of remission, and of the prolongation of the disease to 20 and 30 years, though exceptional, should encourage us.

Symptoms of general paralysis may follow immediately on a blow, suggesting cause and effect.

The most desperate physical condition need not necessarily prove fatal.

Tabes dorsalis predisposes to general paralysis.

Some cases of early general paralysis, with melancholia, may be impossible to recognize. Their tendency is to gangrene, and to a more rapid course than when the disease is associated with other mental symptoms.

It is uncertain what conditions predispose to or determine the melancholic type.

What is the best treatment of general paralysis therapeutically?

*A Case of Post-Eclamptic Mania.* By E. H. ALEXANDER, M.B., Resident Surgeon Edinburgh Royal Maternity Hospital; late Extra-Assistant Physician, Royal Edinburgh Asylum.

The following case is interesting as illustrating a condition of acute mania after eclamptic seizures, quite analogous to the maniacal attacks which one sometimes sees during the post-paroxysmal period of epileptic fits. Such cases naturally come under the notice of the obstetrician rather than the alienist, hence special stress is not laid on the mental aspect of the disease.

Mrs. W—, æt. 17, a primipara, was admitted in a comatose state to Edinburgh Royal Maternity Hospital, under the care of Dr. Berry Hart, on the morning of the 20th February, at half-past ten. From a midwife who had attended her during her confinement the following facts were obtained:—

The patient for the last three months of pregnancy had complained of frequent headaches, pain in the loins, vomiting, swelling of the hands and feet, and puffiness of the face in the morning.

The labour was an easy one. Since the birth of the child, which occurred at 7 a.m. the same morning, the patient had had four convulsions, after each of which she had been "very hysterical."

On her admission the urine was drawn off. It was found to be highly albuminous, to contain numerous tube-casts, and a few blood cells.

Dr. Hart bled her, and advised active purgation, a vapour bath, cupping over the kidneys, chloral per rectum, and chloroform during the fits. As the skin did not act freely, pilocarpin was administered hypodermically.

She had in all eight fits after her admission, the last being at 9.30 p.m. The fits were of the usual epileptiform character, and not ushered in by any cry. The tonic spasm, which was more marked on the right side, was accompanied by conjugate deviation of the eyes and turning of the body to the right. The pupils were contracted, and the conjunctival reflex abolished. The tonic spasm gave way to clonic spasm, with stertorous breathing and foaming at the mouth. The pupils were now dilated, reacted to light, and there was slow nystagmus. The fits lasted about a minute or a minute and a half, and were not followed by any paralysis.

The knee-jerk was absent when the patient was admitted, and did not return until the following day.



The post-eclamptic condition was first one of deep coma, gradually passing off into a more or less drowsy state, with marked confusion, the patient being unable to tell correctly her name, age, where she lived, or where she was. This stuporose condition was replaced in its turn by one of furious mania. The patient became irritable, restless, and excited; now noisy, shouting and swearing, now struggling to sit up in bed and throw off the clothes; or again lapsing into an emotional state, with sobs and tears, incoherent mutterings, and slight erotic manifestations. She had well-marked delusions of personal identity, mistaking the bystanders, both male and female, for her husband.

This maniacal condition, after lasting for an hour or an hour and a half, was succeeded by a period of quiescence—the prodromal symptom of another convulsion.

Her temperature throughout never sank below 100° F., and her pulse averaged 140 per minute. By seven o'clock next morning the excitement had calmed down, and the patient for the first time spoke rationally, and recognized those around her. She then told us that she remembered absolutely nothing from five o'clock on the previous morning. For several days after this she was drowsy and stupid. The temperature remained high for a fortnight, sometimes running up to 102° or 103° F.; this, however, was ascribed to septic infection, probably incurred during her labour outside.

She was discharged on March 18th, having made an excellent recovery, there being neither casts nor albumen in her urine.

*Remarks.*—The primary cause of the eclampsia was in all probability a nephritis of pregnancy, leading to the retention in the blood of poisonous products, the nature of which has, up to the present time, not been determined. The condition remaining untreated, these bodies by their action on the nerve centres led to epileptiform convulsions. Further, we have to note that the patient was, for her age, decidedly childish and emotional, and that she had a distinct heredity towards the neuroses, in that her father is a chronic drunkard, and her mother is very hysterical. The maniacal outbursts might then be looked upon as having for their predisposing cause congenital mental instability, and for their exciting, the epileptiform fits.

*The Pathology of Sudden Death in Mania.* By JAMES R. WHITWELL, M.B., Assistant Medical Officer, West Riding Asylum, Menston.

That in the continued and severe excitement which occurs in some cases of mania, either of paretic origin or otherwise, a sudden condition of collapse may occur which may or may not terminate the case is well known; the exact cause of this condition, however, in each individual case, is frequently a matter of the greatest difficulty to decide. In many cases, however, putting aside coarse hæmorrhages, one may reasonably expect to find some pulmonary or cardiac condition of sufficient magnitude and gravity to permit of its selection as the actual cause of death.

Of the cardiac conditions, either organic valvular disease or some muscular incompetence, associated, perhaps, with a fatty change in the organ, is the most common; of the pulmonary conditions, probably congestion and œdema of the lungs and pneumonia are the most frequent, and it is probable that under one or other of these headings many of the cases of so-called "exhaustion from mania" should be placed. It is especially to the pulmonary conditions found in these cases that attention is directed in this paper.

Pulmonary œdema may occur in these cases as a result of at least two conditions, firstly, as a sequential pulmonary lesion to a failure of the heart, a frequent cause of pulmonary œdema apart from mental cases, and secondly, it may occur as a result of pulmonary embolism not necessarily associated with any abnormality of the heart.

Pneumonia may be associated with acute mania in various ways:—1st, it may be that the pneumonia is a causative or concomitant condition which produces death, either by the extensive area involved or by cardiac or other complications. 2nd, it may be that the pneumonia has occurred as an intercurrent disease, in the same manner that it may attack a sane and otherwise healthy individual. There seems, however, some reason to believe that the administration of chloral in these cases of acute mania not only frequently tends to assist in the production of the pneumonia on account of its effect on bodily heat, but further, by its cardiac action, may assist in interfering with an otherwise not specially unfavourable prognosis. 3rd, it may be that the pneumonia has occurred as an inflammatory

condition of the lung, superadded to the condition of fat embolism.

The following case demonstrates the condition of acute pulmonary œdema occurring in a case of long-continued mania, associated with the presence of fat emboli in the lung :—

E. L., male, æt. 34, first attack ; admitted December 2nd, 1889. A man of fair physique, stature, musculature, and nutrition ; face much scarred with small-pox of old date. Right eye shows remains of old corneitis and has a marked anterior staphyloma. Bodily systems, generally speaking, practically normal, and no obvious sign of syphilis to be noted. Left pupil (the only available) reacts fairly well to diffuse light and accommodative efforts. Knee jerk and superficial reflexes present to normal extent and equal. Mentally, patient is continuously noisy and restless, talking, gesticulating, singing and shouting, and can scarcely be kept quiet for a single moment ; he frequently sings songs of current interest, and passes rapidly from one to the other, and a note or word given to him is readily fitted with some song in which it may occur prominently. Any word mentioned in his hearing has frequently a more or less accurate and appropriate rhyme adapted to it. All this is done by the patient with his eyes mostly shut, and with his hands and feet wandering about in all directions. He shows little or no tendency to violence, but is particularly mischievous, upsetting everything that is within his reach in the most casual way, not being at all disturbed by the crash which sometimes occurs as a result of his deed. With the exception of a day or two, during which he was fairly lucid and quiet, this condition of mania was steadily kept up for  $4\frac{1}{2}$  months, with the physical result that, during the first month, he lost flesh considerably ; during the second he began to put on flesh a little and regain a presentable appearance ; after this, however, he steadily lost weight until his death, which took place on April 20th, 1890. At two o'clock of this morning, while in the midst of one of his frequent nightly outbursts, he somewhat suddenly became quiet, which drew the attention of the night attendant, who found him lying on his back, with a pale and somewhat dusky complexion, and evidently seriously ill. On arriving I found him unconscious, collapsed, and distinctly cyanotic ; pulse 90, of fair tension, and of sufficiently good volume to render the idea of syncope at least doubtful. A sphygmographic tracing, taken at this time, showed a well-marked predicrotic wave, and also some irregularity in force and rhythm, his usual pulse being one of very low tension. Respiration regular, laboured, and but slightly increased in frequency ; numerous moist crepitations were heard in the chest, especially at the left base. His condition gradually became worse, and he died on the evening of the same

day. At the necropsy no point of special interest was observed, except in connection with the lungs: the right weighed 545 and the left 1,160 grammes; the latter was intensely cedematous and congested from apex to base, and small pieces, taken at random, showed, on microscopic examination after treatment with osmic acid, numerous fat emboli, scattered throughout the sections, both in the capillary vessels and in the smaller branches of the pulmonary artery; portions only from the left lung examined. The heart showed some patches of fatty degeneration in its muscular substance; the liver also was fattily degenerated. Although the most careful examination was made, both during life and after death, no sign of bruise or injury, either to soft parts or bone, was detected, with the exception of a faint, pale, yellow bruise of very old date over the right eye and temple, covering an area of about  $1\frac{1}{4}$  inch in diameter.

This case is a type of what occurs clinically in a certain percentage of maniacal cases, and is very apt to be regarded as a case of exhaustion from mania or death from fatty degeneration of the heart, and, doubtless, each of these conditions, in many cases, are factors in the fatal result. Still, the pulmonary condition adds a new and unexpected feature to the case, which must be a most prominent element in, if not the absolute and immediate cause of death. Exhaustion from mania is too indefinite a term to be discussed here, and is largely a screen in the absence of more definite knowledge, but in fatty degeneration of the heart producing syncope, one could scarcely find a pulse of such fulness and tension as occurred in this case, and, in addition to this, the dusky pallor and cyanosis all tend to lead one to the diagnosis of fat embolism in the lung as the actual cause of death. It is difficult to see in this case why there should be none of the well-marked embolic infarcts, but only apparently an acute œdema of the lung; many cases, however, both experimental and clinical\* (*vide* Bergmann), are on record which have shown a very similar condition on post-mortem examination.

Of the connection of fat embolism with pneumonia the following case is an example:—

J. G., male, æt. 35, second attack; admitted February 7th, 1890. A man of fair physique, stature, musculature, and nutrition, and of dark complexion. Left eye has a large leucoma over the centre of the cornea. Bodily systems practically normal. Right pupil reacts but slightly to diffuse light, but well to accommodative effort. Left knee jerk much brisker than right, the latter being

\* Bergmann, "Berliner Klin. Woch.," No. 33, 1873.



about normal. Superficial reflexes practically normal and equal on the two sides. Mentally, patient is apparently much demented, is dull, apathetic, and quite regardless of his position and circumstances, has no cognition of his surroundings, cannot tell his home address, nor is he aware of any dates. With but little mental or bodily variation, patient remained in this state till May, when he became somewhat excited, and pulled a good deal of hair out of his head and beard; this excitement, however, only lasted a short time, and he soon returned to very much his mental condition on admission, and remained so until September of the same year, when he entered upon a state of continuous and acute mania, which lasted till his death in November, and during this time he was continually noisy, restless, and troublesome, singing, shouting, tearing, and jumping about whenever he was not under the influence of sedatives, and he steadily lost flesh throughout the whole period. At about two a.m. on the 8th of November he was noisy and excited, and quite suddenly, in the midst of his excitement, fell backwards, his face became of a dusky cyanotic hue, he had considerable dyspnoea, and his pulse was irregular, but not of very good tension. This condition of collapse and dyspnoea steadily increased until death, which took place about two hours after the commencement of the seizure. At the post-mortem examination the left lung showed œdema of the base and posterior part, but not to any great extent, and considerable emphysema anteriorly. The right lung, throughout its middle and lower tubes, showed a large number of wedge-shaped embolic areas, with their base at the surface of the lung, varying in size from an inch square downwards, and, independently of these more condensed patches, there was considerable œdema of the greater part of the lung. In the upper lobe were also a few infarcts, but the most noticeable feature of this lobe was a large patch of pneumonia in the grey hepatisation stage, which abutted against and merged into some of the embolic areas, and would seem to be an inflammatory condition superadded to a previous attack of embolism, which gave rise to so few symptoms, perhaps owing to the relatively small area involved, as to pass unobserved. Microscopic examination, after treatment with osmic acid of sections taken from portions of the lung in the immediate neighbourhood of the infarcts, showed very numerous fat emboli of various sizes. The changes in the other organs, noted post-mortem, were comparatively unimportant; no special fatty change in any of the organs. Commencing cirrhotic change in both kidneys and considerable hepatic venous congestion. No sign of bruise or injury of any kind observed, either during life or after death, though special search was made with this object in view.

That embolism of a portion of the lung is a not very unfrequent cause of pneumonia has been proved by the

observations of Virchow,\* Panum,† and Cohnheim,‡ and, judging from the surrounding circumstances discovered in the lung in the case of J. G., there is every reason to believe a pre-existing embolism was the cause of the pneumonia; if this is so, it would explain in a most satisfactory manner the frequency of pneumonia as an inter-current disease in mania, and would, in addition, add another factor to be considered in connection with the prognosis of inter-current pneumonia in cases of mania. It is noticeable that the infarcts in fat embolism, when present, are mostly near to the surface of the lung, in which case they are readily observable after death. Where, however, they are not to be discovered, fat emboli may be present and produce acute œdema of the lung, and it is possible that, in these latter cases, the emboli are mainly blocking vessels in the body of the lung, which, perhaps, are not terminal in character.

Fat embolism of the lung was first observed in man by H. Müller§ in 1860, and has since been observed in pyæmia,|| diabetes,¶ injury to bones, mania,\*\* and the status epilepticus;†† and, in addition, has been produced experimentally by various methods and persons. Dr. Jolly‡‡ has drawn attention to this condition in mania, detailing a case previously recorded by Dr. Flournoy, and surmised that, as injuries of the bones were absent, the introduction of fatty matter into the circulation was by reabsorption from the self-inflicted bruises, which are apt so frequently to occur in cases of violent mania, and, in evidence that this is possible, quotes a case of Dr. Fitz§§ (cited by Flournoy), in which mechanical injury of subcutaneous adipose tissue had led to reabsorption. Halm,||| however, has not been able to produce fat embolism by mechanical injury of the subcutaneous tissue in dogs, and in the cases detailed in this paper there was certainly no evidence of any recent injury discovered, though diligent search was

\* Virchow, "Gesammelte Abhandlungen zur Wiss. Med.," 1862.

† Panum, "Experimentelle Untersuchungen zur Physiologie und Therapie der Embolie," 1864.

‡ Cohnheim, "Untersuchungen über die embolischen Processe," 1872.

§ H. Müller, "Würzburger Med. Zeit.," 1860.

|| Wagner, "Archiv für Heilkunde," 1862.

¶ Sanders and Hamilton, "Edin. Med. Journal," July, 1879.

\*\* Flournoy, "Contributions a l'étude de l'embolie graisseuse," 1878.

†† Clouston, "Journ. Ment. Sci.," July, 1879.

‡‡ Jolly, "Archiv für Psychiatrie und Nerven [Krankheiten]," Bd. xi., Ht. 1; "Journ. Mental Sci.," July, 1882.

§§ Fitz, "Boston Med. and Surgic. Journal," May, 1878.

||| Halm, "Beiträge z. Lehre v. d. Fettembolie," 1876.

made with that special object in view. In Dr. Clouston's case also, that of an epileptic who had had a steady series of fits for two days and died comatose, no injury was noted. In this patient there was discovered post-mortem fat embolism of the lungs and pia mater, and, in addition, extensive fatty degeneration of the liver, kidneys, and heart; it was also observed that the cancellated tissue of the bones was very open, and was filled with a grumous fluid. It would appear that our knowledge on this subject is not sufficiently complete to be able to refer with any degree of certainty to the source of the fat in each individual case; there is, however, some evidence to show that, in all probability, fat embolism can occur without any rupture into any pre-existing fat in the body, in which case it is probably due to some obscure change in the blood, producing a condition of lipæmia, perhaps having its origin in the bone marrow, the result of the long-continued and severe mania or convulsions. I may therefore summarize as follows:—

- 1st. A not unfrequent cause of sudden collapse which may or may not result in death in cases of mania is fat embolism of the lung.
- 2nd. That it is to be suggested or diagnosed during life by the presence of the following points:—
  - i. Sudden collapse, with coldness of extremities, etc.
  - ii. Dusky pallor of face, sometimes marked cyanosis.
  - iii. Some dyspnoea: respiration may be shallow, sighing, or laboured.
  - iv. Pulse of fair volume frequently, usually irregular.
  - v. Stethoscopic examination revealing pulmonary œdema or secondary embolic pneumonia.
- 3rd. That it is to be suspected after death by:—
  - i. The observation of intense local œdema of one or both lungs.
  - ii. The occurrence of actual infarcts in the lung.
  - iii. The presence of localized pneumonia, which may or may not be associated with infarcts.
- 4th. That the actual source of the fat is not at present known, but
- 5th. That fat embolism of the lung can occur in these cases without any discoverable injury to either bone or subcutaneous tissue.
- 6th. That it may possibly be due to a change in the blood, brought about by the long-continued maniacal excitement.

*Accumulation of Cocoa-nut Fibre in the Stomach : Death from Intestinal Obstruction.\** By R. S. STEWART, M.D., D.P.H.Camb., Senior Assistant Medical Officer of the Glamorgan County Asylum.

I. A. H., aged 12, was admitted into the Glamorgan County Asylum on 6th November, 1888. When seven months old he had convulsions, and these recurred till he was two years of age, and then disappeared. At the age of seven he had one other fit. He is said to have been able to speak when two years old, but not since then. Ultimately he became so troublesome and defective in his habits as to be unmanageable at home, and he was removed to the asylum.

His mental condition was one of idiocy with much restlessness. He was noisy and dirty, and was much given to picking up rubbish and pulling door-mats to pieces.

Until the commencement of the fatal illness, which occurred on September 4th, 1890, his bodily condition was uniformly good, and there was no hint whatever of any disturbance of the digestive system. He took food well, and was not at any time troubled with sickness, vomiting, or constipation. On the last mentioned date he became listless and apathetic, lost his appetite and began to be sick. Next day he vomited the little milk he took, and appeared to be in some pain, as he now and then put his hand over his abdomen as if suffering there. On that day there was one natural motion. There was no apparent enlargement of the abdomen, and little tenderness on manipulation, but a hard inelastic tumour could be detected in the epigastrium over the site of the stomach. One dose of 5 grs. of grey powder was administered, but was shortly after rejected, and an enema brought away only a small piece of faeces. The vomiting and complete inaction of the bowels continued, the temperature rose to 100° F., and death occurred on 11th September, seven days from the onset of the illness.

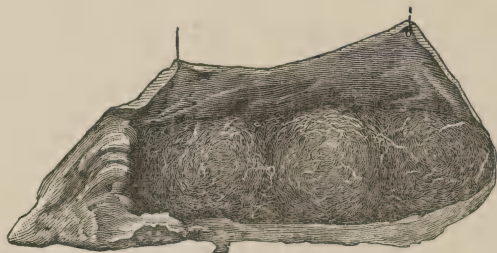
On post-mortem examination made 23 hours after death, the brain was found to be much hypertrophied, its weight being 57ozs., or 11ozs. over the average; the heart was normal, and the lungs and solid organs of the abdomen presented nothing noteworthy beyond slight congestion. A small quantity of brownish serum was present in the pelvic portion of the peritoneal sac, but nowhere was there any fibrinous exudation. About the junction of the lower and middle third of the small intestine an obstructive mass could be felt, and the stomach was occupied by a firm, unyielding mass. The peritoneal lining of the small gut above the seat of obstruction was inflamed. The stomach on removal weighed 25½ozs., and, when emptied, 7ozs. Its contents, weighing 18½ozs., consisted of three separate solid masses, each about the size and shape of the closed fist, and several smaller masses wedged

\* Read before the Cardiff Medical Society, March 5th, 1891.



in between the larger. These were composed almost entirely of cocoa-nut fibre with a few strands of dried grass, soaked in a pea-soup like and only slightly stercoraceous fluid. On section of two of the pieces no lamination could be observed; the fibres assumed a dense felted arrangement. The gastric mucous membrane was only slightly congested, and in the neighbourhood of the pylorus, where the muscular coat was much hypertrophied, it was strikingly rugose. The obstruction in the ileum was found to be a mass of similar composition to those described. It assumed a banana-like shape, and the sharp ends of the loose fibres were projected downwards and outwards into the wall of the gut in a manner that seriously prevented its downward passage. The intestine above the obstruction contained slightly feculent fluid, but not in any great amount, and the mucous membrane presented a swollen and inflamed appearance. Below the obstruction the intestine was empty with the exception of a small mass of fæces in the caput cæcum coli. The Peyer's patches, below the obstruction as well as above it, presented distinct alteration from the normal. Above they were much congested, and below they had a swollen and roughened appearance.

The total weight of the fibre masses after drying was only  $4\frac{1}{4}$  ozs.



*Stomach laid open along the lesser curvature, showing three separate masses of cocoa-nut fibre and the rugose condition of the pyloric mucous membrane.*

Collections of indigestible substances are occasionally found in the stomach of cattle, horses, and goats, and here, as a rule, they form round a nucleus and present a greater or less degree of lamination. Youatt, in a book on the diseases of cattle, published in 1834, records instances in which the nucleus took the form of such varied articles as scissors, a handkerchief, an old shoe, the lash and part of the handle of a whip, a waistcoat, a buckskin glove, a shell, and pieces of straw, stone or iron (verily *il ne faut point disputer des goûts*). Sometimes, as in the case here recorded, there is no distinct central nucleus, and these masses are usually composed of hair irregularly matted together. Occasionally the concretion contains a large quantity of mineral matter, and forms a

calculus capable of taking on a high polish, and sometimes these, forming as they do in the intestine of the horse, give rise to fatal obstruction.

Treves, in his work on intestinal obstruction, classifies foreign bodies occurring in the stomach and intestines into (1) rounded or regularly shaped bodies capable of passing readily, (2) sharp pointed bodies, and (3) indigestible materials of small size which are apt to accumulate and form large masses, such as husks of oats, vegetable fibres, grape skins, hair, wool, and yarn, the latter swallowed by habit by dressmakers and others, or intentionally by lunatics and hysterical persons. The case here recorded would belong to the third class, and it further affords an illustration of a remark which he makes to the effect that these bodies may remain for years in the stomach or intestine without causing any mischief, but that when so lodged they may almost at any time induce changes leading to a fatal result. From inquiries made subsequently to the patient's death it appears that, even before his admission, he had been addicted to eating, among other things, cocoa-nut fibre, and that during the first twelve months of his residence in the asylum he had picked two doormats to pieces, but subsequently to that he entirely gave up the habit. There is every reason, therefore, to believe that the masses found in the stomach had been present for some considerable time, and that there was on the part of the stomach an entire toleration of their presence. The practically unaltered condition of the gastric mucous membrane found on post-mortem examination would point in the same direction, and the fatal result is to be attributed not to the presence of these masses in the stomach, but to the extrusion—an accident liable to occur at any moment—of the small mass into the intestine and consequent obstruction.

Many of the reported cases have occurred in lunatics and hysterical persons. In one case recorded by Dr. Quain, and cited in Treves's work, the obstructive mass of cocoa-nut fibre weighed four pounds. Another is described by Dr McDowall ("Journal of Mental Science," January, 1882), where the colon contained a mass composed of pieces of wood, wire, stocking, ticking, and leaves. Dr. Campbell records ("Jour. Ment. Sci.," July, 1886) an instance where the stomach contained a mass of matted hair, pieces of blanket, and a hank of twine, one end of which had become unwound and extended into the intestine for two feet, and in the case of

an idiot patient of the Earlswood Asylum, described by Dr. Cobbold in the same Journal (April, 1886), death resulted from persistent vomiting induced by the presence in the stomach of a collection of human hair, cocoa-nut fibre, horse hair, and leaves, weighing  $2\frac{1}{4}$  pounds. Habershon ("Diseases of the Abdomen," 3rd edit., p. 253) cites the case of a sailor who had repeatedly swallowed clasp knives. The stomach contained several knives and parts of others; one was found fixed transversely in the rectum, and one blade had perforated the colon. In Walshe's book, "The Horse," an account is given of a young lady who died in consequence of the accumulation in her stomach of hair which she had swallowed. Since writing the above an instance has been related to me where several recently hatched chicks died in consequence of the accumulation in the gizzard of the fibres from moss litter which they had picked up from the floor of their coop.

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*Notes on a Case of Tubercular Degeneration of the Supra-Renal Capsules, without Bronzing, associated with Insanity.* By ERIC FRANCE, Clinical Assistant, Northumberland County Asylum.

Thomas H., butler, admitted to the Northumberland County Asylum, January 13th, 1871, at which date he was 50 years of age.

From the clinical record of the first eleven years of his residence here nothing of special interest is to be gleaned.

Mentally he was the subject of periodical attacks of maniacal excitement; during these he was particularly troublesome and perverse. In the intervals he was quiet and obliging, and willing to do light work in the ward. But even when at his best he was a man of many fads and by no means easy to manage.

During these eleven years his general health was good, and it is not until the month of July in 1882 that those symptoms of nervous and gastric disturbance, which a further development of his case brought into such prominence, first appear.

July, 1882.—Patient complained of pains in his head and refused his food this morning. He also complained of giddiness. His pulse is regular (84 per min.). Temperature normal.

July, 1883.—For the last two months patient has suffered from an eruption, similar in appearance to scabies, affecting flexor surfaces of arms and wrists. He is also much troubled with boils in various parts of the body.

August, 1885.—For the last year or two his health has not been

good. He has suffered much from dyspepsia, which he will only treat after his own fashion. Refusing medicine.

January, 1886.—Bodily health unsatisfactory ; patient sleeps badly at nights.

During the next four years nothing is to be found in the case-books which throws light upon the progress of his disease. But careful inquiry from the various attendants, under whose observation the patient was, elicits the fact that symptoms were noticed which, although at the time they were considered comparatively unimportant, in the light of the autopsy are invested with an interest which we think may to some extent justify the record of the case.

The symptoms referred to are shortly as follows :—

Most prominent were frequently repeated attacks of dyspepsia, which varied in intensity, but were generally ushered in by feelings of dizziness and nausea and were often accompanied by vomiting. In these attacks the old man would always insist on “doctoring” himself, and refused to take any drugs. He was a good deal troubled with constipation. Later on diarrhœa of the intercurrent type appeared.

He was very easily tired, and it was no unusual thing for him to complain of being “tired out” after polishing a tin in the morning and forthwith go to bed for a rest. The attendants had little faith in this “weariness,” thinking he made it an excuse for idleness or in order to annoy them.

Latterly he began to complain of pains in the joints and loins, which he thought were rheumatic. It must be understood that these complaints were never urgent, but rather took the form of remarks dropped casually in the course of conversation. And so, in spite of increasing weakness, he managed, with good-natured perseverance and the help of an occasional “day off” in bed, to keep going about, doing a little work now and then.

But during the month of February of this year (1891) he began to go rapidly down-hill.

Hand-in-hand with increasing severity and frequency of the gastric symptoms came extreme debility, anæmia, and occasional attacks of faintness.

He now was compelled to take to his bed, and he remained there till his death.

During the last two months of his life he became rapidly weaker and his appetite was extremely poor. The cardiac action became very feeble, but no murmur could be made out. The radial pulse was remarkably small, soft, and weak, and could sometimes be felt only with difficulty. The tongue was red and dry, but not much coated. Diarrhœa became, towards the end, more profuse, and he frequently vomited.

Three more extracts from the case-book will conclude the clinical history, such as it is, of the case.

April 26th, 1891.—This morning there is almost complete anorexia.



Patient complains of severe headache and sleeplessness; also of a pain in the right hypochondrium. There is great debility, and he is much purged.

April 28th.—This morning he had another severe attack of vomiting. The vomit was dark-coloured and apparently mixed with bile. Prostration extreme.

April 29th.—Scarcely tastes anything; beef-tea enemata given to prevent starvation; voice almost inaudible; pulse imperceptible at the wrist; still has pain in right hypochondrium. Mentally he is in a sort of hazy stupor.

April 30th.—Died.

Post-mortem examination 17 hours after death. Body not emaciated. Rigidity present in all extremities.

*Brain* 45½oz. With the exception of some slight general atrophy, normal. Lining membranes smooth. No excess of fluid in ventricles.

*Thorax*.—A remarkable amount of subcutaneous fat over chest and abdomen.

*Heart* 8oz. Valves competent. Some atheroma of aorta and valves.

*Lungs*.—Considerable old fibrous adhesion to diaphragm and chest-walls, and slight congestion at bases. No trace of tubercle.

*Abdomen*.—*Stomach* here and there congested. No ulceration.

*Liver* 39oz. Apparently normal.

*Spleen* 4oz. Dark and pulpy-looking.

*Kidneys* apparently normal.

*Left supra-renal capsule* enlarged to at least twice normal size. On section the whole of the normal structure of the organs is replaced by moderately firm caseous material. There is moreover a lobulated or nodular appearance, which, as Virchow points out,\* corresponds to the original tubercular foci.

*Right supra-renal capsule* slightly enlarged. In the process of removal a few drops of pus escaped from the capsule. On section it consisted of a firm albuminoid material, slightly translucent in character, homogeneous in appearance, and of a greyish-white colour. In isolated spots rounded masses about the size of peas are seen, which in appearance closely resemble soft yellow tubercle. On microscopical examination those parts of the capsule which are not broken down into a mass of detritus consist of a proliferation of small round cells, embedded in a fine reticulum, which also encloses several giant cells.

At the close of the autopsy the body was carefully searched for discoloration, but not a trace was to be found. The buccal mucous membrane, said by some investigators to be in a few cases the only seat of bronzing, was entirely free from any discoloration. The sympathetic and the semi-lunar ganglia were not examined.

Some excuse for the incomplete and somewhat fragmentary

\* "*Krankhafte Geschwülste*," ii., s. 689.

character of the clinical notes may be claimed on the ground that the nature of the lesion was not diagnosed during the life of the patient.

*Remarks.*—One or two features in this case seem to give it an especial interest. The first is the entire absence of bronzing. Dr. Wilks, in one of his contributions to the literature of Addison's disease,\* referring to Addison's statement that where the first albuminoid state of degeneration in the capsules had not been passed no alteration in the colour of the skin will be expected, says: "After the publication of his memoir, Addison met with a recent case of this kind where no discoloration was present, and since this some few other similar cases have been observed. These facts would tend to show that the pigmentation of the skin does not occur at a very early period of the complaint, but is one of the later symptoms, and that the constitutional asthenia is really the most important pathological feature, and may be the only symptom present when the patient falls a victim to the disease. The fact, however, must be remembered that in some remarkable and exceptional examples the disease has run a rapid course to its end before the development of any pigment in the skin."

Whether the absence of bronzing in this particular case is to be explained in either of these ways is a matter of opinion, although it appears to us that neither the history of the case nor the autopsy lends much support to either theory. It is for this reason, and because, as Dr. Wilks further says, "nervous depression is the only symptom which is invariably present," that the suggestion, by a French writer, of the name "*Asthénie surrénale*" for Addison's disease seems specially appropriate.

The other points of interest are the age of the patient and his insanity. With regard to the former, Merkel, in discussing the ætiology of the disease,† says: "The disease occurs most frequently in the prime of life, from the ages of 15 to 45, no instance having, as yet, been recorded before 10 or after 60." The earliest symptoms are supposed to have occurred in this patient certainly not before 61 years, and he died at the age of 70.

Lastly, the fact that the disease occurred in an insane patient is of some interest owing to its rarity. The only similar case to be found is one recorded by Dr. R. MacPhail.‡ In this he quotes Griesinger.§ "In Addison's disease there

\* Reynold's "System of Medicine," Vol. v., p. 359.

† Ziemssen's "Cyclopædia of the Practice of Medicine," Vol. viii., p. 644.

‡ "Journal of Mental Science," January, 1885, p. 556.

§ "Mental Diseases," New Syd. Trans., p. 198.

is generally great depression of sentiment, but no case of actual mental disease is known to me," and in addition says that he is not aware that the condition has ever been reported in connection with insanity. As Dr. MacPhail points out, the occurrence of maniacal excitement with the disease in question is most probably coincidental, and as far as we know neither is related, but the rarity of the coincidence makes it worthy of note.

For permission to record this case, and his kind help, I am indebted to Dr. McDowall.

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## OCCASIONAL NOTES OF THE QUARTER.

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### *Meeting at Bristol.*

This, the third Quarterly Meeting held in the provinces, proved another success, and fully justified the course taken several years ago, when it was determined to hold the spring meeting of the Association at some distance from the Metropolis. On many grounds it was the right thing to meet in the West of England. One of the reasons which rendered it a fitting place of meeting was the opportunity which it gave to assemble at and to inspect so well-known an institution as Brislington House. That a cordial welcome and true hospitality would be extended to the Association was fully anticipated, and those who met at Brislington did not fail to find that this anticipation was justified to the greatest possible extent. The President paid an eloquent tribute to the manner in which the Fox family had always conducted this large private establishment. It was a great satisfaction to the meeting that the son of Doctor Prichard, the Nestor of the medical profession in Bristol, was able to be present when the Paper on the life and career of his distinguished father was read.

It was from the very first inception of the Medico-Psychological Association the intention of its founders to hold its meetings in different parts of England, and to inspect the asylums of the locality. The ever-increasing tendency to centralization has, unfortunately, entirely thwarted this excellent and practical idea. The meeting at York inaugurated the return to the original practice, and we can only hope that the peripatetic action now taken with so much advantage to

the vitality and extension of the work of the Association will be fostered. The principle applies to the Annual Meeting whenever the President of the year is in a position to invite the Association to the scene of his asylum work. Happily, this will be the case when the next meeting assembles in Birmingham, and if the nomination of the Council as regards the presidency in the following year be confirmed on that occasion, the Association will meet at York.

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*Kent County Asylum v. The Mayor and Corporation of Maidstone.*

An important action was brought some time since by the Clerk (Howlett) of this asylum against the Borough of Maidstone for the recovery of a sum of money for the maintenance during the year succeeding the coming into force of the Local Government Act, 1888, of certain pauper lunatics sent from Maidstone to the asylum.

Mr. Justice Denman gave judgment in favour of the plaintiff.

The defendants appealed. The case was heard on March 20th, 1891. Appeal allowed. The judgment of the Court was delivered on May 15th before the Lord Chancellor, the Master of the Rolls, and Lord Justice Fry, as follows :—

That something is due to the plaintiff is not in dispute ; the only question is as to the mode of ascertaining that amount. The question primarily turns on the true meaning of the Local Government Act, 1888, section 86, subsection 4. That enacts that when at the passing of that Act a borough of the kind there described contracts with the Quarter Sessions of the county in which the borough is situate for the reception of the lunatics of the borough in the county asylum, such borough shall, on the determination of the contract, cease to have power to build a lunatic asylum, and shall be liable to contribute to the county rate in respect of the county lunatic asylum in like manner as the rest of the county. So far the matter is clear. But the enactment further provides that the liability to contribute to the county rate shall be subject to the enactments providing for an additional charge for the maintenance of lunatics in cases where no contribution has been made towards the cost of building and furnishing an asylum. The object of this provision is clear. If the borough were allowed to join the county after the county had built the asylum without contributing toward the expense of the building it would gain an unfair advantage over the rest of the county, and this is to be



avoided by maintaining in force certain enactments with regard to additional charges. Now, Maidstone was, at the passing of the Local Government Act, a borough of the kind described in the section ; it had a contract with the county in respect of its lunatics, and it had not contributed towards the cost of the county asylum. The Local Government Act, 1888, contains another section which it is essential to mention—namely, the 62nd—which provides, amongst other things, that, in case of difference as to any matters requiring adjustment (including liabilities), agreements may be entered into between the parties for their determination, and that, in default of agreement, they shall be determined by an arbitrator, for whose appointment provision is made. Now, to revert to the change as to the lunatics, we must inquire what, at the passing of the Act of 1888, were the enactments in force providing for the additional charges for the maintenance of borough lunatics where the boroughs had not helped to build the asylum. The only enactments which it appears can be so referred to are the Acts of the 16 and 17 Vic., c. 97, the 25 and 26 Vic., c. 111, and the 30 and 31 Vic., c. 106. The joint effect of these enactments amounted, in our opinion, to this—that the committee of visitors of a county asylum had the power to fix a weekly charge for every lunatic, and to fix, in regard to lunatics taken in from places which had not helped to build their asylum, a larger sum than for lunatics from the county ; that the borough had the power to accept the rate so fixed by the visitors of the Kent asylum or of any other county asylum willing to receive the borough lunatics or to build their own asylum ; that the visitors of the county asylum might carry the extra sum paid for foreign lunatics to a building and repair fund ; that the borough had a power to defray out of the borough rate and in exoneration of the poor rate the sum which they considered to represent the extra sum, not exceeding, however, one-fourth of the entire weekly charge ; that in certain cases the visitors of the receiving asylum were to transmit their accounts in respect of borough lunatics separately—that is, they were to send to the union the account for maintenance of the lunatics and to the treasurer of the borough the account for the extra sum. The result of these enactments was to give power to the visitors of an asylum to contract to receive lunatics and to the visitors of another county or borough to contract to send lunatics, but the borough within the geographical bounds of a county was under no obligation to have recourse to its county asylum ; it might resort to any other county in England or it might erect its own asylum. When, and only when, a contract was made, certain liabilities arose—namely, the liability of the union within the borough to pay for the ordinary maintenance of the lunatic, and the liability of the borough fund to pay the extra sum for the lunatic. But everything in the nature of liability arose from contract. But by the Act of 1888 all this is altered. The borough is deprived of the freedom of contract and of its power to erect an asylum, and in-

stead it was bound to send its lunatics to the county asylum and to pay the ordinary weekly sum for each lunatic. Moreover, the enactments providing for the extra sum were still to be in force. It is obvious that the language of this last clause is not perfectly accurate, because it seems to imply that the enactments created a liability, whereas, in fact, the enactments only gave a power to contract and through contract to create a liability, and this very power to contract the Act of 1888 itself destroys. But though the language of the clause may not be precise, the real meaning is not, we think, difficult to gather. In our opinion the effect of the language used is to create a statutory liability in the borough in respect of the extra sum in lieu of the contractual liability which previously existed, and consequently the borough is still under a liability to pay to the county something more than the mere expense of the maintenance of the borough lunatics. So far it appears to us that the case is reasonably clear, and it is really not in dispute. But then arises the question, how is the *quantum* of this liability to be ascertained? The plaintiff says it is to be fixed by the committee of visitors of the county asylum as it was before the Act of 1888. The defendant says it must be ascertained by agreement or arbitration under section 62 of the Act of 1888. In our opinion the committee of the county asylum have no longer the power to fix the amount of the extra sum to be paid by the borough. The power was given to them only as part of the machinery by which the county could contract with the borough; the resolution of the county visitors fixing the amount had by itself no binding effect on the borough; and it only became binding on the borough when they assented to it. In our opinion the power of the committee of visitors to fix the amount perished with the power to contract, of which it was, in fact, only a part. To arrive at the conclusion that this power survived would be to construe the words in question, not as continuing an existing power for an existing purpose, but as continuing an existing power for a novel purpose, and so as to expose the borough to the possibility of an injustice against which it had lost the power of protecting itself when it was denuded of its freedom to contract with what asylum it chose. It is said, and truly, that after the Act of 1888 the borough will have its representatives on the County Council, but this does not appear to us to be a sufficient answer to the difficulty. We think, therefore, that the determination of the amount of the liability of the borough for the extra sum for its lunatics is one of those matters of difference which under section 62 must be determined between the authorities either by agreement or by arbitration. That has not been done in this case, and, therefore, in our opinion the plaintiff has no present cause of action in respect of the extra sum, and this appeal must be allowed.—*Times*, May 16.

## PART II.—REVIEWS.

*Pope's Law and Practice of Lunacy.* Second Edition. By J. H. BOOME, of the Middle Temple, and V. DE S. FOWKE, of Lincoln's Inn, Barristers-at-Law. Sweet and Maxwell, Limited, London. 1890. pp. 573.

We may say at once—and we say it with pleasure—that in the hands of the present editors the reputation of Mr. Pope's "Treatise on the Law and Practice of Lunacy" is quite safe. All the material features that differentiated the first edition of this well-known work—its clearness of arrangement, its lucidity, its scientific *excursus*, its accuracy, and its detail—have been preserved, while the recent legislative changes in the law of lunacy have been incorporated into the text.

"The Act of 1890," the editors observe in their preface, "at last seems to give some promise of finality in lunacy legislation." Having regard to the incompleteness of the new measure, to its sins of commission, and its far more serious sins of omission, we hope and believe that this is not the case; and in the firm conviction that a third edition of *Pope* will soon be called for, we venture to direct the attention of the editors to the following points:—

1. A tabular explanation of the legal abbreviations used throughout the work is much needed. What are medical men to make of such signs as "B and C," "M and M," "De G, M, and G."?

2. The amount of space (twelve pages) devoted to criminal responsibility in mental disease is utterly inadequate to the importance of the subject.

3. The Act of 1890 should be annotated, even although the process involves a certain degree of repetition. The editors should take "Sebastian on Trade Marks" as a model.

4. Some account should be given of the gradual judicial departure from the rules in *Macnaghten's* case in recent years. These rules will soon be as defunct as "the wild beast theory" which has secured for Mr. Justice Tracy a bad immortality.

5. The statement (p. 20) that "there are no less than five distinct criterions of legal sanity and insanity" is inaccurate, or, at least, misleading. The law now recognizes only one test of lunacy, viz., "Was the person whose act is in question able to understand its nature, and to pass a fairly rational judgment on its consequences to himself and others, and was he a free agent so far as that act was concerned?"

*Life of Dorothea Lynde Dix.* By FRANCIS TIFFANY.  
Houghton, Mifflin and Co., Boston. 1890.

(*Second Notice.*)

Resuming our notice of this interesting work—interesting at least to all who care for the humane treatment of the insane—we take up the thread of the biography, so well written by Mr. Tiffany, at the point where Miss Dix returned from England to the United States, resolved not to take her ease in spite of the temptations to do so, but profoundly impressed with the conviction that she had some great duty in life to perform. The Editor sketches the condition of the insane in New England at this period. It is said that on coming out of church Miss Dix overheard two gentlemen speaking in such terms of indignation and horror of the treatment to which the prisoners and lunatics in the East Cambridge (Massachusetts) gaol were subjected, that she forthwith determined to go over there and look into matters herself (p. 73). Miss Dix began to teach in this gaol and found that there were no stoves in the room where some insane prisoners were confined. Failing to induce the authorities to obtain one, she appealed to the court, and succeeded in her application. Shortly afterwards she became acquainted with Dr. S. G. Howe, the well-known instructor of Laura Bridgman, and with Charles Sumner, who warmly seconded her efforts to improve the condition of the inmates of the prison. Unfortunately this was only a sample of what was to be found in the other prisons and almshouses of Massachusetts. Her memorial addressed to the Legislature, one of many, is a matter of history. In it the following sentence occurs, written in the year 1843, when she was about 40 years of age:—

“I proceed, gentlemen, briefly to call your attention to the present state of insane persons confined within this Commonwealth, in *cages, closets, cellars, stalls, pens—chained, naked, beaten with rods, and lashed into obedience*” (p. 76).

Miss Dix's remedy for the deplorable state of the insane was a new asylum. Her memorial was referred to a Committee of which Dr. Howe was the chairman, and Miss Dix's statements were endorsed. A resolution was introduced recommending the erection of additional buildings in connection with the State Lunatic Hospital at Worcester (Mass.). A Bill was passed by a large majority, and thus Miss Dix achieved her first Parliamentary victory.



Then follows the history of the succession of benevolent enterprises undertaken by this indomitable woman, for the understanding of which we refer the reader to the book itself. We cannot, however, omit the unexpected success she obtained in her appeal to Mr. Cyrus Butler, an account of which we heard from her own lips.

"He was a man of large business capacity, who ultimately left an estate of £800,000, but who, like so many men absorbed in the pursuit of wealth, had contracted a passion for accumulation that rendered it well-nigh impossible to persuade him to give a dollar away. . . It was a singular interview. For some time, through sheer force of life-long habit, Mr. Butler sought to put her off by diverting the conversation to the weather. Preserving her temper and self-control, Miss Dix pleasantly adjusted herself to the humour of the scene, until finally, feeling that the thing had gone far enough, she arose with commanding dignity and said: 'Mr. Butler, I wish you to hear what I have to say. I want to bring before you certain facts involving terrible suffering to your fellow creatures all round you—suffering you can relieve. My duty will end when I have done this, and with you will then rest all further responsibility.' Miss Dix then told her story. Mr. Butler listened with spell-bound attention, and then abruptly said, 'Miss Dix, what do you want me to do?' 'Sir, I want you to give £10,000 towards the enlargement of the insane hospital in this city (Providence).' 'Madam, I'll do it,' was his answer."

Everyone who knows anything about asylums for the insane has heard of the "Butler Hospital," but comparatively few are aware of the origin of the name. It was here that the well-known and esteemed Dr. Ray resided and wrote his classic work on the "Medical Jurisprudence of Insanity." His successors have been worthy of the institution and the first superintendent. The memory of one who died in the early prime of his life—Dr. Goldsmith—lamented by all who knew him on both sides of the Atlantic, should be fresh in the minds of the readers of this Journal.

It must be remembered that but few States had built at that time any asylums for their insane. It was Miss Dix who was the means of founding the asylum at Trenton, New Jersey. She herself christened it her "first-born child." It is an interesting circumstance that in her declining years she here found a quiet haven in which she could anchor her now frail bark till the end of her days. Forty-two years after its

establishment we visited her, and found her still able to feel an interest in the progress of the humane treatment of the insane in her own country and in Great Britain. Three years later she passed away to her rest at the age of 85.

To fill up the interval is to write the history of her life, and this cannot be done within the limits of a review. It will always remain a remarkable circumstance that a woman could carry out and sustain such a revolution on behalf of the insane in the United States, and could effect so great a change in their condition in Scotland. It is the less necessary to refer in detail to her benevolent and spirited work in that land, as we have already described it in the obituary notice of Miss Dix in this Journal (October, 1887).

During the war she worked as a nurse in the most devoted manner among the wounded. "She was very unpopular in the war with surgeons, nurses, and any others, who failed to do their whole duty, and they disliked to see her appear, as she was sure to do, if needed. . . . She was one who found no time to make herself famous with pen and paper, but was a hard, earnest worker, living in the most severely simple manner, often having to be reminded that she needed food" (p. 341).

Less known, but scarcely less remarkable as showing her wonderful energy, was her mission to the Channel Islands in 1855. When at York in poor health, after her invasion of Scotland, she felt bound to inquire into the unsatisfactory condition of the insane in Jersey, of which she had heard something when in Edinburgh. At that very time a young Dutchman, Dr. Van Leuven, had drawn up a report on the provision for the insane in that island. On our showing her this pamphlet her interest was excited, and she requested us to obtain more definite information from the doctor. His reply was, "If Miss Dix will come to Jersey I will give her a hearty welcome, that she may counterbalance the odious *insanity trade* now begun." In July, 1855, Miss Dix visited Jersey. Writing thence to Dr. Buttolph, she says:—"I took a carriage and drove with Dr. Van Leuven to the hospital—found the insane in a horrid state, naked, filthy, and attended by persons of ill-character, committed to this establishment for vice too gross to admit of their being at large. . . . After faithful inspection of the forty insane in the cells and yards, I drove with my letter of introduction to Government House; the Governor not at home. At three o'clock drove to look at a site for the hospital, les Moraines. I approved of it for our use, if it could be had a free gift; we then proceeded to

visit several insane persons in private families—a sad, very sad scene. Went early, Wednesday, to General Touzel's; had a long conversation wholly on business affairs. He went with me to see the governor, who received my evidence in the case (Mr. Potheary's), summoned the Attorney-General, thanked me for the information, and would resume the subject. Next we took up the Jersey Hospital question. I was promised all the Government support, but had to *fight* my way with three dozen members of the States. Thursday, drove into the country, still surveying farms, and seeing the scattered insane. In the evening some members of the Committee of the States called. Friday, other members called, and settled that the full Board of fifteen should be summoned to an extra meeting if I would attend. I consented to remain till the full Board reported, and *not* present the subject to the Government at home, if they would do the work without" (p. 269).

The Committee resolved unanimously to build a hospital for the insane with the least possible delay. It is sad to have to record that the good intentions which were then professed did not take practical effect until seven years afterwards. In 1862 the Local Parliament ("States") decided to build an asylum. This was opened six years later (1868). So slowly was the proposal brought about, although the Committee of the General Hospital had minuted a resolution in December, 1855, recommending the States to erect a building for the insane in consequence of "having received much important information from an American lady, Miss Dix," as also the reports of medical men appointed to visit asylums. We are able to state from an inquiry recently made of the Superintendent of the Jersey Asylum, Dr. George Moore, that the number of patients on December 31, 1890, amounted to 140, the number of admissions since the opening of the asylum being 741.

We cannot leave the episode of Miss Dix's visit to the Channel Islands without paying a tribute of respect and admiration to the young Hollander who was fired with enthusiasm on behalf of the insane in his own country and in Jersey, where he went to reside for the benefit of his health. He was a native of Utrecht, where we first met him in 1853. He received his education at Leyden, but studied in Berlin and Vienna. In 1848 he visited England with Dr. Everts,\* subsequently the Superintendent of the Meerenburg Asylum, near Haarlem. Dr. Van Leuven acted as the Assistant Medical Officer, and threw his whole mind into his arduous

\* See Obituary Notice in this Journal, Oct., 1883.



duties, the result being a complete breakdown in his health. When in Jersey the States appointed him to examine and report upon the asylums of France. The report appeared in November, 1853, and does him the highest credit. When, in spite of change of climate, the disease of the lungs under which he laboured made rapid progress, he returned to his native land in May, 1857. With difficulty did he make the journey, so great was his exhaustion. Let the remainder of the story be told by a Jersey paper of the period. "He arrived at the railway terminus at Utrecht, and from thence was conveyed in a carriage to the home of his childhood. Retaining his mental faculties to the last moment, he pointed out to the companion of his journey the objects of interest between the railway and the town. A few minutes more and he will cross his father's threshold—but not in life. The carriage stops. There is the house. There is his father. He places his wife's hand in that of his father. 'Be kind to her,' are his last words. They lift him to bear him to his boyhood's fireside, but they bear a corpse."

It is only right to record and hold in respectful remembrance the names of men like Dr. Van Leuven, who worked side by side with Miss Dix in endeavouring to forward her noble purpose.

We conclude our notice of the biography before us with the editor's description of the close of the good American philanthropist's life:—

"The end came on the evening of July 17th, 1887. For a month she had been growing steadily weaker. Still with her habitual fortitude, and that desire to pass unobscured through the portal of death, so characteristic of believing natures, she had begged her dear friend, Dr. Ward, to avoid the use of anodynes, and to tell her distinctly when the last hour was at hand. This was not to be. Although Dr. Ward had given his pledge that he would apprise her as soon as he saw the end near by, it came as unexpectedly to him as to her. He was sitting at the tea table when the nurse suddenly ran down to report that Miss Dix was sinking away rapidly. Mounting the stairs, on opening the door, just as his eye fell on her, she breathed a quiet sigh, and all was over."

The burial took place in Mount Auburn Cemetery, near Boston, Mass. Occurring when, in the height of the summer heat, so many are away at the seashore or in the mountains, a few friends only stood by the grave. Communicating to her English friends the intelligence of her last illness and death,



Dr. Nichols, who had been so long and intimately associated with her throughout her great career, closed with these words his letter to Dr. Tuke :—

“Thus has died and been laid to rest, in the most quiet, unostentatious way, the most useful and distinguished woman America as yet produced.”

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*The Principles of Psychology.* By WILLIAM JAMES, Professor of Psychology in Harvard University. Two Vols. American Science Series. New York : Henry Holt and Co. 1890. London : Macmillan and Co. 1890.

Professor James modestly declares in his preface that he does not hope for many readers of his “fourteen hundred continuous pages,” a number that no one “can regret more than the writer himself.” As a matter of fact, no one but the writer will regret them, for by allowing himself ample space, Professor James has not only been able to make his own theories clear and his book entertaining by abundant illustration, but by copious extracts from the works of other writers he enables his readers to judge fairly of his argument or contention with their opinions, without imposing upon him the trouble of hunting up authorities, or running the risk of receiving a false impression by misinterpretation.

Rarely in a scientific work does one gain (as one cannot help supposing) an impression so vivid of the personality of the writer—of an honest, simple, kindly man, with a remarkably unprejudiced mind, ready to entertain every suggestion, even to the extent, in some cases, of apparent inconsistency; generous to those from whom he differs, while merciless in setting forth their errors; immensely industrious, and with unbounded curiosity and ready memory, shown by his familiarity with the works of many kinds and of many nations; of great ingenuity and perspicuity, with a certain uncertainty of conclusions, sometimes decided and definite, sometimes leaving the reader in doubt whether at another time he might not think in another way. A “spiritualist” (or “common-sense”) man, in his assumption of the origin of thought, he is a materialist of materialists in his theory of the emotions, and in some respects of the “association of ideas,” although, while accepting in places

the associationist argument, he especially points out the fallacy of "ideas" as an explanation of cerebration, and substitutes a total object of thought. The conclusion of the chapter on "Will" is "determinative." Most of the analyses and arguments therefrom could be used by the advocates of free will, and very much such as his would be their description of the ego, while the lesson of that and of the related chapters, especially of the one on "Habit," without any pious intention on the part of the author, would furnish matter to every Sunday School and pulpit in the land.

Although Professor James is an evolutionist, he unflinchingly controverts Spencer, to whom, however, he does justice for his cleverness, while he utilizes him as the "horrible example." Let it not be thought that the conclusions drawn or the reasoning is wanting in logic or clearness; nothing could be less true of Professor James's method. Most of the apparent inconsistencies are due, no doubt, to the fact that the book was not written (in the first instance) as a whole, but is composed of lectures, essays, etc., written at different moments, thoroughly revised, however, to keep them abreast of the progress of the science, and to establish the connection between them. This fact accounts also for considerable inequality of composition, some of the chapters being written with a completeness-beauty that makes them literature of the first class, while others lack this finish, although the vivacity of style, originality, and variety of illustration and ingenuity of argument make every page full of life, fulness, and originality.

Professor James treats Psychology as "a natural science, assuming as its data (1) *thoughts and feelings*, and (2) *a physical work* in time and space with which they co-exist, and which (3) *they know*," leaving the explanation of the origin of thought to the metaphysician, claiming for this "positivist point of view the only original feature of the book." In spite of this disclaimer he cannot keep away from the metaphysical, and his suggestions for the solution of these questions (although his conclusions are not always definite) are not the least valuable part of his work. Equally, although he leaves zoology and "pure nerve-physiology" to the professors of physiology, his discussion of this latter subject especially gives evidence of his mastery of the matter, and tends to its elucidation.

Finally, Professor James best describes his whole position. "The boundary line of the mental is certainly vague. It is

better not to be pedantic, but to let the science be as vague as its subject, and include such phenomena as these if by so doing we can throw any light on the main business in hand. It will ere long be seen, I trust, that we can, and that we gain much more by a broad than by a narrow conception of our subject. At a certain stage in the development of any science a degree of vagueness is what best consists with fertility."

The book opens with a chapter on the Scope of Psychology, in which the presence of mind is described as evidence by the pursuit of ends and choice of means. This is followed by two chapters on "The Functions of the Brain" and "Some General Conditions of Brain Activity," in which the latest physiological results are reviewed and illustrated, and the various theories of reflex actions, centres of sensation, and the seat of consciousness are considered. The next chapter on "Habit," from a literary point of view, is the best. It was published in the "Pop. Science Monthly" in 1887, and although it has its place in the scheme of the book, it is an essay complete in itself. In the next chapter, the "Automaton Theory" is discussed and rejected; and here end the preliminary chapters, so to speak, from which point Professor James advises beginners to skip forty pages, but for students the most interesting part of the book begins. A consideration of "Mind-Stuff" shows Professor James's "spiritualistic" bias, although he makes the thesis of this chapter and of that on the "Consciousness of Self":—"Whether after all, the ascertainment of a blank unmediated correspondence, term for term, of the succession of total brain processes be not the simplest psycho-physical formula, and the last word of a psychology which contents itself with verifiable laws, and seeks only to clear and to avoid unsafe hypotheses" (?)—the result of this latter chapter being that "the consciousness of self involves a stream of thoughts, each part of which as 'I' can (1) remember those which went before and know the things they knew, and (2) emphasize and care paramountly for certain ones among them, as '*Me,*' and *appropriate to these the rest.*" The answer to the question "Why the successive passing thoughts should inherit each other's possessions, and why they and the brain-states should be functions (in the mathematical sense) of each other" is—"the reason, if there be any, must lie, where all real reasons lie, in the total sense or meaning of the world." The preceding chapters, "The

Stream of Thought," the substance of which appeared in "Mind" in 1884, and the "Relations of Minds to Other Things" lead up to this.

The remaining chapters of Vol. I. deal with "Attention," "Conception," "Discrimination" and "Comparison," "Association" ("Pop. Science Monthly," 1880), "Perception of Time" ("Journ. Speculative Philos.," Vol. XX.), and "Memory."

Volume II. begins with the chapters on "Sensations," "Imagination," "Perception of Things," which may be taken together. The likeness and difference of sensation and perception are pointed out, and the former is defined as "the first things of consciousness," and the opinion is reflected that sensations are primarily subjective, with the conclusion "that there is no truth in the eccentric projection theory." As regards relativity of knowledge, the psychological theory most ably supported by Helmholtz is compared with the physiological one adopted by Professor James, in support of which he quotes Hering at great length. "Imagination" is described as the consequence of the modification of the nervous system by sensations, so that copies of them arise again in the mind after the original outward stimulus is gone. The probable identity of locality of imagination and sensation is pointed out, and the fact that the more the intellect is cultivated the less is the visualizing power.

"Perception" is next treated, false perceptions or illusions and their causes leading up to the consideration of the psychological process "that whilst part of what we perceive comes through our senses from the object before us, another part always comes out of our own head" by the reaction of nerve-centres on sense-impressions. Hallucinations come from the same process carried further, and are considered only the "extreme" of the perceptive power, the secondary cerebral emotion being out of all proportion to the cerebral stimulus which occasions the activity.

The chapter on "Perception of Space," "a terrible thing" as described by its writer, is reprinted from an article in "Mind" (1887), so notwithstanding its revision it is unnecessary to describe it here. It takes up the subject in great detail, and although this is conducive to a clear understanding of the author's views (which are most interesting and instructive) it occupies an almost unduly large space in the volume.



The "Perception of Reality" also appeared in "Mind" in 1869, but is much longer here. While the perception of space is shown to be purely sensational, that of reality is held to be more nearly allied to the emotions than to anything else. "The psychological opposites to belief are doubt and inquiry, not disbelief."

"Reasoning" was published as "Brute and Human Intellect" in the "Journ. of Speculative Philos." in 1878. "Associative Thinking" Professor James finds is common to men and animals. "Reasoning" is differentiated as the "ability to deal with *novel* data." "The most elementary single difference between the human mind and that of the brute lies in the deficiency on the part of the latter to associate ideas by similarity, the logical conclusion of which is that "genius is identical with the possession of similar association to an extreme degree," Newton's perception of the connection between an apple and the moon, Darwin's between the rivalry for food in nature and the rivalry for man's selection being quoted as instances of action possible only to exceptional minds.

The physiological conclusion is, briefly, that the cerebral difference between habitual (or instinctive) thinking or reasoned thinking is in the former case a certain system of cells, or one part of the brain, vibrates persistently, and discharges regularly into another system of cells, while in the second case, part of the first system keeps vibrating in the midst of the second one, without regard for time. "Production of Movement" comes next—some form of bodily activity being the result of the escape of central excitement through the outgoing nerves. These movements take three forms—(1) Instinctive or impulsive performance; (2) Expressions of emotions; (3) Voluntary deeds.

The next chapter, on "Instinct," was published in 1887. The argument is that instinctive actions all conform to the general reflex type, but they are not regular, for they are modified by the inhibition of habit and by their transitoriness.

"The Emotions" is an amplification of the original article in "Mind" in 1884, in which Professor James first presented the subject of their physiological origin, the vital point of the theory being—"If we have some strong emotion, and then try to abstract from our consciousness of it all the feelings of its bodily symptoms, we find we have nothing left behind, no mind stuff out of which the emotions can be

constituted." Then follows the author's most curious and apparently incontrovertible theory (if the brain process that rules both be taken into account) that the expressions cause the emotions, not the emotions the expression of them.

"Will" is a revision of two articles previously published. The only immediate end of will is movement; the idea of a movement is the anticipation of its sensible effects, "the contents and material of this consciousness of movement, as of all things else, being of a peripheral origin," as are also sensations relative to space, emotions, and beliefs, which is the tie that unites these chapters. The psychology of will stops, however, with the prevalence of the motive idea; the supervention of motion depends on the executive ganglia, and is outside the mind. The "essential achievement of the will" when it is most voluntary is to attend to a difficult object and hold it before the mind. Still the question remains whether this idea is sufficient, or whether it must have some mental antecedents.

Professor James holds that "Free Will" is insoluble on grounds of psychology, though the will may and ought to be educated.

The chapter on "Hypnotism" is an able review of the progress and conditions of the subject, and its results will be generally accepted by those who are not disciples of any of its (as yet insufficiently investigated) special teachings.

The last chapter, on "Necessary Truths and the Effects of Experience," is devoted to proving three propositions:—

1. "That taking the word experience as it is universally understood, the experience of the race can no more account for our necessary or *à priori* judgments than the experience of the individual can."

2. "That there is no good evidence for the belief that our instinctive reactions are fruits of our ancestors' education in the midst of the same environment, transmitted to us at birth."

3. "That the features of our organic mental structure cannot be explained at all by our conscious intercourse with the outer environment, but must rather be understood as congenital variations, 'accidental' in the first instance, but then transmitted as fixed features of the race. On the whole, then, the account which the apriorists give of the *facts* is that which I defend; although I should contend for a naturalistic view of their *cause*." That is to say, we inherit a certain nervous system; that the nature of this system, the

organic structure of the body, the state of the brain, and the variation in bodily conditions all influence our thoughts and feelings, and by change in them, or by affecting the senses, is our only way of changing our conscious life. Our conceptions of the world and our reactions on it are mainly due to the sort of brain we have, not to the objects among which we live.

So ends with a positive "Confession of Faith" a very remarkable book, the apparently inconsistent conclusions, by the way, being reconciled in this perhaps the most interesting chapter at the end.

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*Outlines of Psychology.* By HARALD HÖFFDING, Professor at the University of Copenhagen. Translated by MARY E. LOWNDES. London, 1891: Macmillan.

This students' manual is a translation from the German of the Danish work, and is so excellently rendered by the translator that in reading it there is no feeling of the inelegance and want of clearness which are so often present in translations. With the exception of a few unimportant and obvious slips of expression, the language is clear and simple, and remarkably free from any special psychological shibboleths.

The work is in seven chapters, the first three being devoted to general psychology, their titles being "Subject and Method of Psychology," "Mind and Body," and "The Conscious and the Unconscious."

Psychology is, provisionally, described as the "science of mind," *i.e.*, of that which thinks, feels, and wills; and the author endeavours to preserve it as a pure science of experience.

The author, from this empirical (phenomenal) standpoint, excludes both the spiritualistic and materialistic views from his conception of psychology, and allows to the English school the merit of liberating the subject from metaphysical speculation.

The existence of prenatal consciousness, on which Ladd considers it wiser not to speculate, is accepted as probable, and the evolution of consciousness is followed through infancy and the savage state.

Höffding insists on the study of our own consciousness as the secure starting-point for a knowledge of the mental world, pointing out the difficulties of introspection, the influences of

individual differences, the assistance to be derived from experimental and objective inquiry, both physiological and sociological.

In the chapter on *Mind and Body*, the distinction between material phenomena and mental facts is drawn, by the former resting on the assumptions of the persistence of matter and energy. A sketch of the functions of the various parts of the nervous system, their mutual relations and relation to the body, leads to the statement of conscious life consisting of three main characteristics:—(1) Change and contrast as condition of the individual elements entering consciousness; (2) preservation or reproduction of previously given elements, together with the connection between them and the new elements; and (3) the inner unity of recognition.

The term *unconscious cerebration* (Mill) is objected to as implying the existence of conscious cerebration. Höffding concludes that the difference between human consciousness and "the psychical element associated with the group of atoms," may be one of degree only; but asserts that this does not exclude the possibility of the emergence of absolutely new forms and properties to which there is no parallel in the lower stages; and that we cannot form any idea of those forms of mental life which lie lower than what is to us the threshold of consciousness.

Psychological elements are described (p. 88) as the different sides or qualities of the states or the phenomena of consciousness, and are divided as usual into cognition, feeling, and will.

Under Cognition follow divisions on sensation, ideation, "the apprehension of time and space," and "the apprehension of things as real." Feeling is treated under the heads of "feeling and sensation," "feeling and ideation," etc., ending with a division on the influence of feeling on cognition.

Will is described as the most primitive and the most derivative mental expression, its higher developments being conditioned by the development of cognition and feeling, and the reaction of the will on these and on itself is traced. The concluding division is devoted to individual character, the elements of which are physical, social, and inherited conditions. Temperament is pithily described as the "fundamental mood," the "feeling regulator" of the individual; as a background determining the mode in which all experiences are received. The author thinks that bright and dark temperaments (related to the influence of the vegetative functions on the brain) might be added to the old four, which "can be traced back to



the greater or lesser ease with which external stimuli can set in motion the central nerve organs."

Throughout the work there is a wonderful crispness of expression, and although the views advanced are not strikingly original, yet the careful order in which they are marshalled, the simplicity and clearness of statement, make the appreciation of the matter both easy and pleasant. The work cannot fail on this account to be both popular and useful with students of psychology, to whom it may be commended as a most satisfactory handbook.

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*Le Sommeil et la Système Nerveux.* By S. SERGUEYEFF.  
Two vols. Félix Alcan. Paris, 1890.

This ponderous tome is the first volume of M. Sergueyeff's work on the "*Physiologie de la Veille et du Sommeil*," dedicated so far back as 1881 to the late Emperor Alexander II. of Russia.

Starting in the first chapter with the statement that vital alternations of sleeping and waking are essentially vegetative, the assumption is made that these are dependent on an "aliment," which should be ethereal, "sthenic," or dynamic, and the conclusions arrived at in the final chapter are that there is an assimilation of the so-called "imponderable ether," or "dynamisme ambiant;" that this is effected by the ganglio-epidermic apparatus, and its application to the needs of the body made by the ganglionic elements of the sympathetic system.

A serious criticism of the deductions made from the numerous quotations from writers on physiology, and of the facts advanced in support of these, would occupy much space and time; the statement of the theory will probably suffice for those who are interested in such speculations.

One quotation, however, must be alluded to, viz., on p. 777, from Benjamin W. Richardson: "C'est ce même ether produit dans l'économie, à l'aide duquel on perçoit, on sent &c."

The production of the "ether" in the economy, our author naively says, seems going too far, and for once we can agree in his conclusion, although we doubt the correctness of the translation which attributes powers of creation to the human economy.

H.R.

*Hérédité et Alcoolisme. Étude Psychologique et Clinique sur les Dégénérés, Buveurs et les Familles d'Ivrognes.* Par le Docteur M. LEGRAIN. Avec une préface de M. le Docteur MAGNAN. Paris : Octave Doin, Editeur. 1889. pp. 424.

It will be interesting to note some of the conclusions arrived at in 1875 by a conference of members from various temperance societies in the United States, and which the author, in an early chapter of the present treatise, enumerates as follows:—  
 1. That intemperance is a disease. 2. That it is curable according to the same principles as other diseases. 3. That it has for its principal cause a constitutional susceptibility to the action of alcoholic drinks. 4. That this constitutional tendency may be hereditary or acquired. To the first only of these M. Legrain draws attention, and sets himself the task to prove it in the following pages. He divides drunkards into two great classes—"les buveurs inconscients" and "les buveurs conscients," remarking that the former, though rare, do exist; that some are the victims of ignorance, whilst others are the victims of an imperfect social condition. The second, much the larger class, he arranges into three groups:—(1.) Those in whom the moral sense is feebly developed or completely obliterated; these come into the category of "*fous moraux*." (2.) Those in whom the moral sense exists, but the will is defective. It is a transition stage towards the next group. (3) Dipsomaniacs, or "les buveurs impulsifs," in whom "the will alone is completely annihilated by the fit, under the predominant influence of an impulse, the character of which is the most absolute irresistibility." The second chapter concludes with the final analysis that "the great majority of drunkards are predisposed."

In the following chapter on the genealogy of alcoholic cases and their hereditary antecedents, a very instructive table gives a classification of cases, recorded throughout the book, in which alcoholic excess in the antecedents acted as the almost exclusive cause. Another gives an elaborate tabulation of cases where alcoholism and some form of neurosis co-existed in the antecedents, on either paternal or maternal side or on both, or where alcoholism occurred on one side and a neurosis on the other. "Heredity," remarks the author, "predisposes not only to excess in drink, but also to precocious excess," and he recites several very interesting cases. In another chapter he discusses the physiological action of the various forms of

alcohol (ethyl, methyl, butyl, propyl, amyl), and absinthe, and the individual predisposition; the reaction of alcohol and epilepsy, one on the other, and the special influence which absinthe has in causing explosions of epileptic fits.

The fifth chapter is the longest, occupying 203 pp., and by far the most important. Its subject is the *rôle* which heredity plays in alcoholic delirium. The amount of resistance offered by individuals to the action of alcohol absorbed from day to day, rather than at any given time, enables M. Legrain to classify drinkers for the sake of description under five heads:—1. Those who drink to excess in a regular manner all their lives, and in whom, though they show signs of health deficient in tone, cerebral alcoholism never makes its appearance. "Their well constituted brain is proof against delirium, and the only intellectual troubles imputable to alcohol which one observes amongst them consist, apart from drunkenness, in what are common to all people." 2. Also a very resisting class in which delirium, at length, but after a very great number of years of excess, breaks out. "The delirium seems to make its appearance only with reluctance," and when age is advanced, but muscular trembling may have been present for some years. 3. Cases of simple heredity. They are simply the predisposed who "do not yet present the mental state." "They are, for example, the sons of drunkards, the heirs of an elementary insanity, as melancholia, mania." They are attacked with delirium at a much earlier age than the preceding class. 4. Here we have cases where "heredity is much more powerful, and in which alcoholic delirium will be completely modified." "Henceforth the alcoholic factor will have much less importance in the clinical table. It will have the same value as, or a value even less than, the hereditary factor. The more intense the predisposition, the more lively will it be felt." 5. The most degenerated class—"those whose resistance against the action of alcohol is very considerably lessened. In the clinical table all, or nearly all, result from predisposition. Alcohol only plays the *rôle* of an additional factor." The author then proceeds to give in three comprehensive articles, into which the remainder of the chapter is divided, the history of the period of incubation, the period of attack, and the period of regression.

The three concluding chapters are taken up with a study of alcoholism in relation to the convulsive states—alcoholic and absinthic epilepsy; a form of alcoholism special to hereditary subjects—dipsomania; and a medico-legal sketch. Finally

the author sets forth some thirty-five conclusions, but space will only permit us to give extracts from a few here:—

That alcoholism and pathological heredity react one on the other.

The knowledge of the hereditary antecedents of alcoholics is of the first importance. It furnishes the reason for alcoholic habits, as also it explains the different varieties of conduct of those affected.

Heredity predisposes to precocious excess.

The predisposed get intoxicated more easily than others.

Maniacal and melancholic alcoholism are the two principal hereditary forms. The other forms described—comatose, apoplectic, convulsive—are found amongst hereditary subjects, but they find their cause more particularly in the nature of the alcohol absorbed.

The varieties of form which alcoholic delirium of the predisposed assumes are infinite. They depend on the nature of the predisposition, its intensity, and also the amount of excess committed in a given time.

Those least predisposed become delirious slowly.

Drunkards beget epileptics as also they beget drunkards.

No one can read M. Legrain's book and not be struck with the important and very active rôle which heredity plays in the great majority of cases of alcoholic excess. The arguments in favour of his conclusions are well sustained, and the cases recorded are numerous, interesting, and to the point. It is a work which well merited the prize awarded to it by the Société Médico-Psychologique in 1888, and will no doubt be read by all with the greatest interest.

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*Étude Médico-Légale sur L'Alcoolisme. Des Conditions de la Responsabilité au point de vue Pénal chez les Alcoolisés.*  
Par le Docteur VICTOR VÉTAULT. Paris: J. B. Baillière et Fils. 1887.

The author, in his introduction, draws special attention to the increasing abuse of alcohol since the beginning of the present century, and also to the fact that writers on the subject have, during the same period, become specially alive to its deleterious effects on the intellectual faculties. That the abuse of fermented liquor is becoming of more frequent occurrence every day, and that the number of intellectual troubles due to it is on the increase, are, he tells us, facts



sufficient to enable us to judge of the immensity of the danger. Dwelling at some length on the connection of drink with crime, and the laws relating to drunkenness in various countries, he passes on to give an historical account of the use of fermented drink from the earliest times.

The first chapter is devoted to the consideration of inebriety, which the author divides into simple and complicated or pathological. The effects of various intoxicants—wines, brandy, rum, kirsch, tafia, whisky, liqueurs, absinthe—on the system are described; but it is on intoxication from absinthe and beer that M. Vétault specially dwells. "In simple and occasional intoxication by alcohol," he writes (p. 45), "hallucinations are exceedingly rare; in intoxication due to absinthe they are, on the contrary, frequent, and as M. Magnan remarks, this liquid contains two poisons; the essence of absinthe acts first, it produces delirium and hallucinations before the alcohol has had time to exert all its action." In beer, not only has the alcohol (not always the purest) it contains to be taken into account, but also the action of hop and other ingredients used in its manufacture, *e.g.*, box, gentian, woody nightshade, hellebore, stramonium, Indian berry, nux vomica, glycerine, salycilic acid, etc. "Very little has been written on intoxication from beer, perhaps because of the difficulty of observation. It is rare, indeed, to find beer an exclusive cause of intoxication, and the composition of this liquid is so variable that one is often puzzled to know exactly what agent is the cause of the phenomena observed."

The author recognizes three stages of intoxication, which, nevertheless, cannot be defined with anything like exactness for medico-legal purposes. "The state of the memory, however, can give some valuable information on this subject. It is admitted that voluntary acts determine a certain number of intellectual observations, which fix themselves and leave an impression more or less lasting in the mind. When the amnesia of certain acts is proved, it is that they have been performed without deliberation, resolution, or consciousness. In inebriety it is a matter of daily observation to recognize facts according to the degree of intoxication, sometimes partial amnesia, sometimes, on the contrary, complete amnesia.

"This phenomenon of amnesia is of the greatest importance. Denied by some, held by others, it is much more common than is supposed, and we have gathered a great number of facts, enabling us to say it is the rule in all great intellectual disturbances under the influence of profound alcoholic intoxication.

When a violent delirium—a fit of alcoholic fury—breaks out, when homicidal impulse of an irresistible brutality arises, there is no recollection of the acts. The oblivion is as complete as that which follows the attack of epileptic mania, with which indeed the fit of alcoholic mania has numerous points of resemblance” (p. 60).

In deciding the question of legal responsibility no set rule can be laid down, and as alcohol acts on no two individuals in exactly the same way, each case must be judged by itself, and many circumstances must influence the decision, such as temperament, heredity, previous history, form of alcohol imbibed, stage of alcoholism at which the offence was committed, the memory of what has occurred, etc. A person is culpable in that he imbibes too freely of what he knows has power to render him intoxicated; beyond this every case differs.

Referring to the law in France, he writes:—“If our legislation does not expressly include acts committed under the influence of alcoholic intoxication, if even the law makes no allusion to drunkenness as a circumstance extenuating culpability, are we to conclude that it does not take into account the state of inebriety under the influence of which illegal acts have been committed, and can we not apply in a certain measure the provisions of article 64 of the penal code in spite of its silence on this subject.” Laws dealing with drunkenness in connection with crime as an extenuating circumstance or otherwise must of necessity, we think, allow of a considerable degree of latitude, and to insert clauses defining clearly the relation which the several stages of drunkenness should bear in mitigating the punishment of criminals will be no light task for the legislator, when we consider the diverse opinions held by medical jurists at the present time.

Complicated or pathological intoxication is described as “fits of excitement or maniacal fury which are observed in predisposed individuals under the influence of spirituous liquors,” and two varieties are distinguished—maniacal and convulsive—conditions which cause great difficulty when it becomes necessary to determine the responsibility of a delinquent. Several very interesting cases of complete and partial responsibility are quoted.

The second chapter is devoted to *delirium tremens*. Like M. Magnan, the author regards three classes of cases:—  
1. Those in whom “the acute symptoms have only a relatively short duration,” and in whom convalescence is “*benigne, rapide et complète*.” 2. When convalescence is slow and relapses

occur on slight provocation. 3. The predisposed in whom convalescence is impeded by the persistence of delirium. Alcoholic delirium in absinthe drinkers, though showing the same intellectual symptoms, and characterized by similar hallucinations as ordinary alcoholic delirium, presents instead of incessant muscular trembling, a state of torpor described by M. Delasiauve as "*stupeur ébrieuse*."

Chronic alcoholism occupies another chapter, and after passing in review the various symptoms under the head of disorders of intellect, sensation, and motion, M. Vétault proceeds to consider the medico-legal question. The work terminates with a chapter on dipsomania. Trélat says, "Drunkards are persons who drink whenever they find the opportunity, dipsomaniacs are *sick persons* who get drunk when the mania seizes them." The drunkard, says M. Vétault, "seeks for occasions to drink. He does it openly, joyously, with a noise, and in company of his friends. The dipsomaniac, on the contrary, tries to escape the temptation. He flies from them; he does all he can to make himself dislike alcoholic drink, and when the resistance he has offered is conquered, he isolates himself, and surrounding himself with a thousand precautions, hides himself from the observation of others."

The work, indeed, is a valuable exposition on alcohol and its bearing on medico-legal questions, written by an eminent physician in a clear and masterly style, and cannot fail to repay a careful perusal to all interested in the subject; but, in our opinion, more prominence might with justice be given to intemperance as a disease, and to a very great extent an inherited one, when summing up the question of responsibility, for at p. 152 we find:—"For our part, the habitual drunkenness of a subject, which has not yet given place to the permanent and irreparable lesions of chronic alcoholism, can in no case extenuate the part of responsibility which is incumbent on him for the unlawful acts of which he has been the agent." And in a previous chapter, p. 68: "To sum up, every time that a man who is not affected by chronic intoxication or any other form of mental aberration, commits an offence or a crime under the influence of drink, he is responsible."

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*The Origin of the Aryans: An Account of the Prehistoric Ethnology and Civilization of Europe.* By ISAAC TAYLOR, M.A., Litt.D., Hon. LL.D. London, Walter Scott.

(Continued from p. 286.)

The fourth chapter upon "The Aryan Race" is an extremely interesting one. After alluding to the fact that the general tendency of families resulting from mixed marriages is either that they die out, becoming unfertile in the second or third generation, or that the children throw back upon the pure type of either parent, thus preserving the purity of one of the original types, he points out that language, on the other hand, is much more likely and liable to change than physical racial characteristics. One race may implant its language upon another and then disappear, so that language is no safe criterion of race.

Having shown in the last chapter the similarity of the civilization described by the language of the undivided Aryan, with that possessed by the neolithic, brachycephalic, lake dwellers of Europe, Canon Taylor proceeds to point out that he considers this people to be the real Aryan race. For, although representatives of all the four European races now speak Aryan languages, neither the "Iberians" (whose language is lost) nor the "Ligurians," who spoke an Altaic language, can be reasonably considered the original Aryan speaking race; nor does he consider that the degree of civilization attained by the "Scandinavians" at an early time would give them sufficient title to support this claim. He tells us that, at the present time, German scholars generally still hold the opinion that the "Scandinavian" is the true Aryan, while French writers take his own view that the "Celts" and their round-headed cousins of Europe were the Aryans proper.

The subject of the fifth chapter is "The Evolution of Aryan Speech." "The undivided Aryans doubtless roamed as nomad hunters and herdsmen over a considerable territory, gradually multiplying in numbers and incorporating other tribes. The modifications of the primitive speech are believed to be largely due to the acquirement of Aryan speech by these alien races."

The linguistic evidence has now to be taken into account, as to whether the brachycephalic race of Central Europe or the dolichocephalic northern "Scandinavians" were the original speakers of the Aryan language.



Of the various Aryan languages, the Lithuanian or Lettic languages appear to have changed the least and Teutonic the most. But the Teutons have the largest proportion of Scandinavian blood, while the Lithuanians and other Aryan speaking populations of Central Europe are still brachycephalic and have adhered more closely to the primitive linguistic type. "Thus it would seem that the Lithuanians (and not the Teutons) have the best claim to represent the primitive Aryan race, as their language exhibits fewer of those phonetic changes and of those grammatical losses which are consequent on the acquirement of a foreign speech."

The affinities between Aryan and Semitic speech are not sufficient to bridge over the impassable gulf between them; no such gulf, however, exists between the Aryan and Altaic languages. Statements to this effect are followed by an interesting passage upon the possibility of the development of Aryan languages from an Altaic stock. The arguments made use of possess considerable force.

"The Aryan Mythology" forms the subject of the concluding chapter. From it we learn that the "undivided Aryans" appear to have possessed a very feeble conception of religion—some crude form of Shamanistic worship. After their separation, however, they appear to have borrowed largely from Phœnician, Etruscan, Mesopotamian, and other Asiatic peoples. (Higgins, the Yorkshire antiquary, held very similar views early in the present century. Though, owing to the imperfect knowledge in his times, his facts and premises are more faulty than his deductions.) The origins of Grecian, Roman, and Indian mythologies are to be found in Phœnicia, and Asia Minor, and Etruria, or in Egypt and the Euphrates valley, and not in the country of the undivided Aryan race. Scandinavian mythology has little in common with those of Greece and Rome, and any resemblance between those of the latter countries with one another or with the Indian mythology, can be traced to a common non-Aryan source.

Thus viewing the various races of Europe from the different standpoints of geology, archæology, history, philology, and mythology, Canon Taylor arrives at the same conclusions, that the Aryan language was developed in Europe, and that the Turanian roundheads were the original Aryan race.

It must, however, be confessed that, if we accept his con-

clusions, we are compelled to regard the Aryan race as a branch of the great Asiatic Turanian family, which embraces also the Asiatic Dravidians in the south and the Ugro Finns or Mongolians in the north, and probably the Lapps and French Basques in Europe. But the original home of this family is, however, still supposed to be Asia and not Europe. Is Max Müller, then, altogether wrong in his extremely guarded statement, "that our Aryan ancestors dwelt somewhere in Asia before their separation?" For this writer is now careful not to state that this separation took place in Asia, although this was his original hypothesis. The case would appear to resolve itself into this—that if the brachycephalic people of Central Europe are the Aryan race (*i.e.*, the original speakers of the Aryan languages), they were already settled in Europe at the time when the separation of their various tribes took place, which resulted in the formation of the various Aryan languages. As, however, brachycephalic man does not appear in Europe in Palæolithic times, and as his Aryan language is possibly a development of an earlier language of Altaic form, and as Altaic languages are the usual languages of other Turanian races, it would appear highly probable that he did migrate from Asia into Europe about the commencement of the Neolithic age. Further, that as the pure Turanian type is black-haired and black-eyed, we must look to Northern Europe or North-Western Asia for the causes which modified the type, and changed it to a light-eyed, red-haired variety, with fair freckled skin, and also for the causes which caused this particular type to develop a different form of language from that spoken by his cousins, the Ligurians to the south-west, the Lapps in the north, and his Tartar brother nomads of the Steppes of Asia, or the Accadians of the Euphrates valley.

That the pure Turanian type does occasionally produce a red-haired variety and that red is the sub-colour of the black Turanian hair, we have ourselves had the opportunity of ascertaining to be a fact in the island of Japan. It is even possible that this tendency to rufous albinism (to use a *contradictory* term) is more common than we imagine, and that red-haired Turanians would be often observed if they did not dye their hair. Fair-skinned Turanians do further exhibit a tendency to freckle.

Are we then to suppose that the original undivided Aryans were a tribe of red-haired Turanian albinos, owing their

persistence of type to natural selection, or that they gained these red-haired, light-eyed characteristics from intermarriage with some other race? Again, are we to attribute the development of Aryan languages in a different direction to the Altaic forms of speech of their Turanian brethren to a sort of mental left-handedness, which accompanied their physical rufous characteristics, or to their contact with some alien race?

To endeavour to prove that because the Scandinavian dolichocephalic rowgrave inhabitants of the North Sea coasts were barbarians in the time of Cæsar, that, therefore, they had no civilized cousins in South Europe, is like trying to prove that the Etruscans or Egyptians cannot have been civilized at the time when the Celts invaded Britain, because the "Iberian" aborigines of that island were unacquainted with metals.

The positive evidence of archæology is excellent, so far as it goes, but its negative evidence is not equally satisfactory. If, for example, we imagine that the Southern Scandinavians were in the habit of cremating their dead, the absence of Scandinavian skulls in Greek or Roman graves would rather support than negative the theory that the Greeks and Romans proper were of Scandinavian blood.

The gigantic "Scandinavian," brainless and stupid though he may have been, must have possessed a position of no mean level as a warrior among the Turanian tribes in early times. It would be but natural to find him affiliated amongst the European nomad clans, just as we find negroes affiliated amongst the Semitic Bedouin tribes of Arabia. Personal prowess in barbarous times rapidly led to the chieftianship. Nor would it be at all inconsistent with historical evidence to suppose that the early invasions of the Iberian seaboard of the North Mediterranean were effected by Turanians, headed by Scandinavian chiefs. The physiognomies of the northern invaders of the Egyptian Delta, as depicted upon the walls of Egyptian tombs, are Scandinavian in appearance rather than Turanian. In the present day we find the aristocracy of Northern Europe to consist more of the Scandinavian than of the Turanian type. This type assumed its supremacy after the downfall of the Roman Empire, during the fighting times of the middle ages. It requires no great stretch of imagination to picture the prehistoric condition of non-Iberian Europe. Upon the advent of the nomadic Turanian, besides his

earlier Ligurian relations, he found the more barbarous Scandinavian giant of fighting proclivities in possession of the northern coasts. Intertribal wars of the Turanians would cause the enlistment of the Kitchen Midden warrior on either or both sides. His prowess would be rewarded with presents of *wives* and *weapons*, which would result in his gradual absorption into the tribe. His savage and brutal nature would lust after power, and from a leader in war he would become the chieftain in times of peace. By the plurality of his wives the racial characteristics of the tribe would tend to become modified, and he might not unnaturally affect the language by his incapacity to acquire it. His Teutonic stupidity would demand the complicated and definite forms of expression employed in Aryan grammar, and which would be unnecessary to his more intelligent subjects. The impersonality and somewhat vague imagery and construction of an Altaic tongue would convey but little meaning to his dull and narrow brain. The construction and grammar of the language would change to suit his inferior and intellectual capacity; while his limited vocabulary would require an almost endless number of words to be borrowed from his more civilized Turanian people. Even in cases where a Scandinavian word did already exist, it might not unnaturally be agglutinated in the harem or the nursery with its Altaic equivalent.

It is impossible to avoid asking whether some external causes, such as this, did not modify the racial and linguistic characteristics of the undivided Aryans.

No matter how inferior the intellectual capacity of the "Scandinavian" may have been, he has always possessed, so long as we have been acquainted with him, that personal power over his fellow men which is so often the accompaniment of great bodily strength. The power of ruling is notably deficient among the Turanian races; while the long-headed European aristocracy, or their orthocephalic descendants, are the rulers of more than half the whole world.

Brachycephalic Goethe may have written Faust, but the long-headed Fredericks have governed Germany. Canon Taylor does not overlook this possible Scandinavian influence, but he appears inclined to under-estimate it. Until the supporters of the Turanian hypothesis can furnish us with some more satisfactory explanations for the modification of the race, and the development of the language of the Aryans,



it is difficult to accept the author's conclusions in their entirety.

In his endeavour to bring out the Aryan race in a strong light he has somewhat thrown into the shade the rival candidate for the honour of being our Aryan ancestor. He would also appear to rather under-estimate the degree of civilization which had been attained by the Iberian of the Continent in early times. Upon the Mediterranean he must have been something more than a mere troglodyte fisherman, even if he did not bury metals and pottery with his dead, and cannot have been far behind if he did not excel the Turanian Aryan in the arts of life.

The identification of the Basques and Iberians with the Hamitic race is, in many respects, highly satisfactory. The explanation that the modern language of both the Spanish (Iberian) Basques and of the French (Ligurian) Basques was originally that of the Altaic-speaking Ligurians, and not that of the conquered Hamitic Iberians, is almost conclusive. Both hypotheses seem to clear a vast extent of ground, hitherto covered with difficulties, if they will bear subsequent criticism.

Canon Taylor has stated the case of the supporters of the European hypothesis clearly and concisely. If we cannot endorse all his views, perhaps it is chiefly because it is unpleasant to unlearn theories we had previously accepted. To many Europeans it may be unpleasant to learn that we are indebted to our Turanian blood for most of our best racial characteristics. Those of us who are brachycephalic will be surprised to hear of their newly-discovered cranio-logical and physiological relationship with the Tartars, Chinese, and Japanese. Those who are dolichocephalic, on the other hand, may be disgusted at being assigned a "Kitchen Midden" ancestry, aristocrats though they be. Nor will the dark, long-headed Scot, Irishman, or Welshman altogether rejoice at the idea of his possible Hamitic paternity.

In conclusion Canon Taylor says, "The work of the last ten years has been mainly destructive. The work of the previous half century has been revised, and ingenious, but baseless, theories have been extensively demolished, and the ground cleared for the erection of more solid structures.

"While, on the one hand, science has been specialized, on the other it has been shown that the correlation of the pre-historic sciences is as intimate as the correlation of the

physical sciences. The whilom tyranny of the Sanscritists is happily past, and it is seen that hasty philological deductions require to be systematically checked by the conclusions of prehistoric archæology, craniology, anthropology, geology, and common sense."

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*The Science of Fairy Tales.* By E. S. HARTLAND, F.S.A.  
Contemporary Science Series, edited by Havelock Ellis.  
London: Walter Scott.

To those familiar with the writings of Professor Tylor and of Mr. Andrew Lang, the views summarized and exemplified in this volume of the origin and meaning of the meaningless in fairy talés will not be entirely new; and those who have read Mr. Sidney Hartland's papers on the "Luck of Edenhall," etc., in the "Archæological Review," and Mr. Edward Clodd's "Rumpelstilzkin," in the "Folk-Lore Journal," will be prepared for a science of fairy tales, strange as it sounds. It is difficult even in these days of new sciences to think of nursery tales being gravely classified, arranged, and explained—their origin, growth, and metamorphoses shown and elaborately set forth like any other—"organism," shall we say? And to most readers the idea, we may venture to predict, will be both novel and distasteful.

In the first place let us disabuse our minds of the supposition that those delightful stories, "Jack and the Beanstalk," "The man who wanted to learn to shudder," "The Yellow Dwarf," and countless others, were invented to cause a cold chill in the nursery circle, or to stimulate small boys to deeds of daring in countries where the beans are woefully short and feeble. They were told, so we learn, in the first place by men to whom there seemed nothing unlikely in the events related.

Fairy tales are divided into two classes, those belonging to Sagas, and supposed to embody history or account for phenomena, and those simply told for amusement—*Märchen*. These latter, however, may, and often have been told, at some time or by some other nation as Sagas, but from one cause or another have degenerated into *Märchen*. There are, indeed, known instances of stories told by some savage tribe to account for the rise of their own nation, "at bottom identical with those told as *Märchen* among nations that have reached a higher plane."

What is the state of mind of the man who can hear and tell,

without seeing anything extraordinary about them, such incidents as the following, all common and occurring in the tales of nations widely separated both by race and geographical position?

Lovers, fleeing from a wizard or parent, throw down a comb in the way of their pursuer—it becomes a mighty hedge; they throw down a bottle of earth—it becomes a mountain; a bottle of water—it becomes the sea; a man obtains three oranges, breaks them open one after another, a bird flies out; on giving the bird water it becomes a beautiful maiden, whom he marries; a woman, jealous of the beauty of another, runs a pin into her head, and she changes to a bird. Strange things to us, but to those from whom the stories came there was nothing unlikely about them, and if such things did not happen every day, it was simply because there did not arise any sufficient occasion.

In the savage, "first we have that nebulous and confused frame of mind to which all things, animate or inanimate, human, animal, vegetable, or inorganic, seem on the same level of life, passion, or reason. The savage draws no hard and fast line between himself and the things in the world" ("Myth, Ritual, and Religion," by Andrew Lang, Vol. I., p. 47). "Conscious personality and human emotions are visible to him everywhere and in all things. It matters not to the savage that human form and speech are absent. These are not necessary, or, if they are, they can be assumed either at will or under certain conditions—for one of the consequences, or at least one of the accompaniments, of this stage of thought is the belief in change of form without loss of individual identity. The bear whom the savage meets in the woods is too cunning to appear and do battle with him as a man, but he could if he chose" ("Science of Fairy Tales," p. 26).

Such are some of the grounds on which our author and others of the school—which might be called the school of Dr. E. B. Tylor—found their claim for a "Science of Fairy Tales."

"It is not science to fill one's head with the follies of Phœnicians and Greeks, but it is science to understand what led Greeks and Phœnicians to imagine these follies," quotes Mr. Andrew Lang, so they boldly tackle the "follies," and the science grows.

The theory of "confusion in early Aryan thought and speech," as accounting for all the strange stories of the classic mythologies, gives way before the facts of the wide distribution of the tales among non-Aryan races.

The distorted-history theory breaks down also. Mr. Hartland is able to show how our own story of Lady Godiva has no historical foundation, but its incidents and the ceremonies connected with its celebration are traced from Coventry and St. Briavel's to Smyrna and the country of the Mahrattas, and have doubtless some origin quite independent of the good Leofric and Godgifa, Earl and Countess of the Mercians ("Science of Fairy Tales," pp. 71-92).

Mr. Hartland starts from ascertained facts in savage intellectual life. We have first the belief held by savages that man consists of body and spirit; that it is possible for the spirit to quit the body, and roam at will in different shapes; that in the spirit's absence the body sleeps; that the universe swarms with embodied and disembodied spirits—which it appears are as likely to do one thing as another, and that it is the spirit of a rock in it which makes it roll over and crush a man, is not less clear to the savage than that it is the spirit of a man in him which makes him pick up a stone and throw it at a stranger. Again, there is the belief of the possibility of change of form while preserving identity, and the belief that some people have power to cause these changes. In a word, the belief in spirits, in transformation, in witchcraft, accounts for all the extraordinary incidents in the tales of savages, which the evolution of civilization and accidents of conquest and borrowing have degraded from "history" taught and recited by the tribal bards to simple Märchen, still told by the old folk in the chimney corner in out-of-the-way places, but which Miss Edgeworth, in the preface to "Parents' Assistant," declares unfit for children, as they may thereby have their ideas of truth destroyed.

Where so much is excellent and the matter so interesting, it is unpleasant to find fault, but Mr. Hartland's system of references is most confusing. On pp. 120-121 there is a paragraph of 27 lines; in it are 11 different incidents from nine different authorities, all referred to one foot-note, so that it is very difficult to find out who is the author responsible for any particular statement.

To say that this is the only fault in the book is to say more than we know in these early days of the science, but it is at least a most able and interesting exposition of the method and views of the modern school of folk-lorists. Anyone who has carefully read the book will not for the future dismiss as mere nonsense the most wild-sounding superstition; and if the idea can be diffused that perhaps once there was sense in what



seems so foolish now, it may be that intelligent people will carefully note any strange tale or custom of which they may hear, and thus important links be found connecting modern superstitions with long-past religious festivals and ceremonies—the superfluous and unaccountable in civilization with everyday savage life.

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*Jacob Herbert. A Study in Theology.* By the Rev. JOHN EVANS, B.A. London: Hodder and Stoughton.

For a writer to balance the opinions of three different schools of thought after the fashion of the author of this book is a form of literary juggling to which we are nowadays little accustomed. We always know, however, which ball will come down safest, for each is marked, and one represents the real opinions of the author. Mr. Evans introduces us to three persons, representing the orthodox theologian, the scientific agnostic, and the broad evangelical, and the avowed object of their discussions is to show that more is claimed for science than can be sustained, and that dogmatism is not confined to theologians. Jacob Herbert, Roger Adam, and Jeremiah Smith are the representatives of the three schools above-mentioned, and their arguments are directed to the elucidation of such subjects as the universal belief in God (viewed from the moral, cosmical, and other points), the attributes and personality of God, the theory of evolution, etc. The book can scarcely be called either a metaphysical or a psychological work. It is rather a gymnastic exercise of a semi-religious nature, and it ends by giving the impression that science and religion are not always incompatible, but that where the former fails, the latter (seen from Jacob Herbert's, *i.e.*, Mr. Evans' point of view) is unerring, and if it does not agree with "Science" it is because the latter is incomplete. Surely, this is dogmatism à l'outrance, but it is, perhaps, what was to be expected from a divine with a large amount of reading on sectarianism and the political events of the day, a physiological education of rather more than a superficial character, and a knowledge of just such an amount of natural science as may be gained by the study of Darwin. It is not our experience that the best scientific men are inclined to doubt the fundamental truths of religion, although Mr. Evans

rather assumes it, but the book will serve to steady the wavering, and we can recommend it as a fair exposition of the *pros* and *cons* of the questions raised in it. One great feature of interest is that by following up the various arguments as they are propounded, we may anticipate the objections that will be made, and we shall find that Mr. Evans' ingenuity often places things in a new light and leads us to a conclusion that we cannot resist, although at one time the maze seemed inextricable. A philosophic broadness of treatment is conspicuous throughout much of the work, and as the pages bristle with facts of one kind or another, there is no lack of interest to the general reader. The book thus forms a very efficient addition to the armoury of those who have to combat the crudities of neophytes, or the careless statements of others, who, whilst advocating materialistic views, have a very superficial knowledge of the bases upon which theologians rely.

T. C. S.

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*The Watering-Places of the Vosges.* By HENRY W. WOLFF.  
With a Map. London: Longmans, Green, and Co. 1891.

The author of "Rambles through the Black Forest" has just placed in the hands of the public an equally interesting little book under the title of "The Watering-Places of the Vosges." Though occupying but a small space—155 pp. in all—it gives much valuable information, concerning over a dozen delightful resorts in the French Vosges. There numerous springs are to be found of various temperatures, diverse composition, and quite close together. At Contrexéville, the author tells us, two springs are to be found issuing from the ground, not a foot apart from one another, which are of totally different qualities. Great changes have taken place in these resorts within a comparatively short period. Bad roads, dirty baths, uncomfortable rooms, and distasteful food have disappeared, and now give place to all that is clean and comfortable. Numerous *établissements* and well-managed hotels have sprung up and supply accommodation more than sufficient for the number of visitors who frequent these watering-places, which are not known as well as they deserve. Indeed, English visitors are few, excepting at Contrexéville and Plombières.

Plombières, situated at an elevation of 1,310 feet above the sea-level, is attractively situated in a narrow valley, "and

for many miles round, the country is charming, a mass of picturesque hills and dales, magnificent forests, with rockeries and cascades, velvety meadows and heathered moor." Twenty-seven different springs are now utilized at Plombières, and bathing establishments are distributed over different parts of the town. Only four of the springs, however, are used for drinking, as the main treatment consists in prolonged baths from half-an-hour to an hour-and-a-half duration. Of the springs used for treatment, one is chalybeate, another is mildly laxative, and the others are alkaline.

The watering-place of the Vosges most frequently resorted to by the English is Contrexéville, and it is the only one which can boast of an English church. Its waters have been generally acknowledged to be efficacious in the treatment of gravel and gout, and large quantities are drunk daily for this purpose, and the export trade of the water in bottles is rapidly increasing. Only three miles from Contrexéville lies Vittel, where the waters are very similar to those of the last place and of service in similar complaints. Martigny-les-Bains, only a quarter of an hour's railway journey from Contrexéville, supplies a cold water which is rich in lithia. Bourbonne-les-Bains, with its springs of 140° to 147° F., has strongly mineralized waters, corresponding somewhat to Wiesbaden. Springs of two different compositions—alkaline and chalybeate—exist at Luxeuil. The other places described are Bains-les-Bains, Bussang with its tonic water containing arseniates of iron, and some small spas on the German or Alsatian side of the Vosges, which include Kestenholz (called by the French Châtenois), Niederbronn, Sulzmatt, Sulzbach, and Wattweiler.

People who are contemplating a visit to the Continental spas will do well to read Mr. Wolff's little book, and physicians who are frequently asked to recommend a health resort will find much practical information here in a small compass. Patients suffering from slight forms of mental trouble associated with gout, might derive much benefit from being sent to one of the watering-places of the Vosges. Analyses of the waters from the various sources are given in tabular form, the complaints likely to receive benefit enumerated, and the historical and geographical relations of the places are pleasantly described. It may be considered a useful guide-book, written by one who is thoroughly conversant with his subject, and we cordially recommend it to our readers.

*Atlas of Clinical Medicine.* By BYROM BRAMWELL, M.D., F.R.C.P.Edin., F.R.S.Edin. Edinburgh: T. and A. Constable, University Press. 1891.

We are pleased to see the first part of this important work, and hope we may be able to congratulate both author and publishers on succeeding parts as sincerely as we can on the first issue. Myxœdema, sporadic cretinism, and Friedreich's disease (ataxy) are the subjects dealt with in the text. Three remarkably well executed coloured plates illustrate myxœdema; the first two, but in particular the first, are typical, the third is much less so, but is for that very reason the more interesting, for the clinical history, as given, can leave no doubt in the mind as to the nature of the disease. We would suggest that the œdematous sacs under the eyes are not sufficiently strongly put in; one is likely to overlook them, but perhaps our suggestion would force the artist's hand. The injection of the cheeks and nose is, as the author points out, atypical in its excessive degree. Friedreich's disease is fully illustrated, both in its pathological and clinical aspects, and by inserting the genealogical tables of some of the now classical cases, the graphic principle is still more completely carried out. The woodcuts are excellent. A valuable addition to the text, in the case of each disease described, is a section headed the clinical investigation of the disease in question. In this the chief points to which we should pay attention are accentuated. This section, both from a teaching and learning point of view, will prove of much assistance.

Mental disease is well illustrated by coloured plates, *e.g.*, melancholia, dementia, mania. Some of these plates, printed on different coloured papers, are reproductions of older plates. Of all we can speak in high praise of the artistic qualities. The work, if carried out in text and illustration as carefully as it has been begun, will prove a very valuable possession.

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*Psychologie de l'Idiot et de l'Imbécile.* Par le Dr. PAUL SOLLIER. Félix Alcan, Boulevard St. Germain. Paris, 1891.

This is an ambitious and fairly successful attempt to work out the morbid psychological condition which exists in idiots and imbeciles. A short paper on the subject appeared in



1866 in Vol. XI. of the "Journal of Mental Science," but this book contains no less than 276 pages. The author is well qualified to undertake the work, as he was formerly one of Dr. Bourneville's assistants at the Bicêtre, where is a school for training idiots and imbeciles, and he is now curator of the museum at that institution. His object, he says in his preface, has not been to show the more or less frequency of some of their psychical peculiarities, but to make a study of them all.

He describes the sensations, instincts, and sentiments which are known to exist, and examines fully the amount of intelligence, will, and responsibility which idiots and imbeciles possess. He confines his research to individuals who are young in age, partly because his field of observation has been limited to these, but chiefly because the period of youth is the most interesting time in which to study the evolution of the different faculties. He mentions the various definitions which have been given by authors, and maintains that the faculty of attention serves as the best basis of classification. This opinion he defends at some length.

Intelligence, according to Ferrier, is proportionate to the development of attention and to the development of the frontal lobes, and those of us who are engaged in the education of idiots are aware that the frontal lobes are often defectively developed in those whose power of attention is very feeble. Perez has remarked that in young children, as well as in young animals, the most attentive are apparently those in whom nervous sensibility is well developed. Sensation is known to be defective in idiots, so that anatomy and physiology equally tend to show the impossibility of normal attention in these beings. To develop intelligence it is necessary to develop the senses and the muscular movements; but when the relation of the latter to one another is altered one can easily conceive the difficulty of developing the attention.

The author then refers to the three periods which Ribot distinguishes in its formation, and applies the knowledge thus gained in examining the development of this faculty in idiots and imbeciles. Attention is spontaneous or voluntary: the first is the primitive form; the second is the result of education. Imbeciles are almost as difficult to educate as idiots who are a little elevated in the intellectual scale; in the latter it is difficult to attract the attention, in the former it is impossible to maintain it.

*Outlines of Physiological Psychology.* By GEORGE TRUMBULL LADD. Longmans, Green, and Co: London. 1891.

There has been a general demand for a smaller work, containing the essential parts of Professor Ladd's somewhat ponderous work "On Physiological Psychology," and we are glad that this want has been met by the volume, the title of which is placed at the head of this notice. The larger work we have already reviewed. It was published in 1887 under the title of "Elements," etc. The author points out that the "Outlines" is not a mere abridgment of the former work. Parts I. and III. of the large volume, which treated of the nervous mechanism and of the nature of mind in relation to the body, have, we think wisely, been shortened. On the other hand, Part II., which gave an account of the relations between the excited cerebral organs and mental phenomena, has been enlarged. As a whole, the work forms a valuable text book, and we have no doubt that it will be much used in this country. The illustrations are good.

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*The Asclepiad.* By BENJAMIN WARD RICHARDSON, M.D., F.R.S. 2nd quarter, 1891.

This journal loses none of its interest, and is continued with the same spirit by its unwearied and able author. An account of Dr. William Hewson, F.R.S., constitutes a worthy addition to the valuable series of biographies with which Dr. Richardson has enriched the "Asclepiad." As usual, he has succeeded in obtaining an excellent portrait to accompany the notice.

The prevailing epidemic is treated of under the title "Influenza as an Organic Nervous Paresis," for as such the author regards it. The confusion which reigns in regard to the best remedy is accounted for by our ignorance of the cause. In his experience the speediest relief is obtained from breathing the vapour of ammonia. When, however, the nervous depression comes on, this remedy is useless. Dr. Richardson does not tell us what he should administer for this condition. He only tells us what he should not give. "The successful remedy, when found, will not be an alcoholic stimulant. According to my observation, alcohol has added largely to the dangers of influenza."

### PART III.—PSYCHOLOGICAL RETROSPECT.

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#### 1. *Retrospect of Criminal Anthropology.*

By HAVELOCK ELLIS.

*Crime and its Causes.* By W. D. Morrison, of H.M. Prison, Wandsworth. "Social Science Series." Sonnenschein, London. 1891.

This is an excellent little introduction to the study of criminality in its various aspects. In French there is a somewhat similar book of a more brilliant and elaborate character—Tarde's "*Criminalité Comparée*"—but Mr. Morrison's book is the first of its kind in England, and deserves a hearty welcome. The author is throughout in sympathy with the modern methods of studying criminality; he deals first with the cosmic factors in the production of criminality (climate, season, etc.), then with the social factors (destitution and poverty), and finally with the biological factors (criminal anthropology proper), with a concluding chapter on punishment. At the outset Mr. Morrison shows that crime is not diminishing in England, either in amount or in seriousness, but is on the whole increasing, and he points out the various fallacies which have led to a contrary supposition. In an interesting chapter on Climate and Crime he brings together much of the evidence on the subject, examines the various fallacies involved, and shows that the whole body of evidence, from whatever quarter it is collected, points with remarkable unanimity to the conviction that, as far as European peoples and their offshoots are concerned, climate alone is no inconsiderable factor in determining the course of human conduct. Although this matter has often been dealt with by continental writers, it has not before been shown so clearly that in England and English Colonies the same factor of climate exerts the same influence in increasing or diminishing crimes of violence. The same may be said of the influence of season on crimes against property, which is dealt with in Chapter III. Mr. Morrison shows that the constant augmentation of crime in England during the summer cannot be traced to an increase of drinking, vagrancy, or other social causes, but is due to the influence of season, and "that any considerable rise of temperature has a tendency, as far as Europeans and their descendants are concerned, to diminish human responsibility." He points out that this influence may be traced in prison and out of it, among children in schools, soldiers in the army, workmen in factories. In a chapter on Destitution and Crime, founded on English statistics, Mr. Morrison brings forward arguments to show that the number of offenders who fall into crime through the pressure

of absolute want is five per cent. of the annual criminal population tried before the courts, and that consequently even "although there was not a single destitute person in the whole of England and Wales, the annual amount of crime would not be thereby appreciably diminished." In the next chapter on the allied question of Poverty and Crime, Mr. Morrison shows that where there is most poverty there is least crime. This also corresponds with the result of foreign investigations; in France, for instance, it has been found that crime is associated with prosperity. This fact is in curious contrast with an opinion widely spread to-day. As Mr. Morrison remarks: "It has been reserved for this generation to propagate the absurdity that the want of money is the root of all evil; all the wisest teachers of mankind have hitherto been disposed to think differently, and criminal statistics are far from demonstrating that they are wrong." After devoting a chapter to Criminality in Relation to Age and Sex, Mr. Morrison turns to the biological factor and considers the evidence regarding the mental and physical characters of criminals, and summarizes some of the evidence which enables us to demonstrate that "criminals, taken as a whole, exhibit a higher proportion of physical anomalies and a higher percentage of physical degeneracy than the rest of the community," and that "the bulk of the criminal classes are of a humbly developed mental organization," by whatever scientific term we may choose to describe this low mental organization. In the last chapter on Punishment, Mr. Morrison has little that is new to bring forward, but he gives a good description of the methods now adopted in this country, and makes some sensible remarks on the necessity of properly training prison officers. The book is throughout simply and clearly written, and should do much to revive an interest in the scientific study of criminality in England.

*The New York State Reformatory in Elmira.* By Alexander Winter. "Social Science Series." Sonnenschein, London. 1891.

Mr. Winter's little book, published simultaneously in England and Germany, is the best available account of the work carried on in the famous "Moral Sanatorium" of New York. It presents in a concise and yet interesting form all the various aspects of that many-sided institution, dealing with the organization of the establishment, the reception, promotion, and liberation (on parole) of the prisoners, their daily routine and diet, the school and library of the institute, the "Summary," a newspaper edited and printed by the prisoners, the technical training and industrial occupations of the prisoners, the results of the experiments in physical training and in military training, together with a summary of the general results attained in the fifteen years during which the reformatory has been in existence.



*Fifteenth Annual Report of the New York State Reformatory at Elmira. 1890.*

There were 1,500 inmates at Elmira during 1890, 1,111 of whom received trade instruction, while with few exceptions they all received more or less military training. Admirable facilities for the physical training which forms so important a part of the treatment at Elmira have now been provided by the completion of the gymnasium. This includes a Turkish bath with rubbing, warm and hot rooms and plunge, and a light and well-ventilated exercising room, equipped with developing apparatus of approved model and construction. Dr. Wey tells us in his report that 128 men have received treatment in the gymnasium during the year, either for physical renovation, for intellectual or for moral improvement. "The effect upon the dullard of the bath, exercise and dietetics, quickens and widens the scope of motor and sensory functions, draws out latent energy, and establishes in a degree a susceptibility to class-room influences. Thus qualities of cerebration become reasonably certain that were possible but not probable during a continuance of the patient's vegetative state. He needs cyclonic action to institute a proper mental habitude and dispel his crudities of mind. Those selected for ethical improvement were instances of low and faulty bodily conditions operating to the detriment of order and behaviour." The report is followed this year by a most remarkable descriptive appendix, such as has probably never before followed a prison report. "This appendix," we are told, "is entirely the product of inmate labour in the institution. The text has been prepared by the Editor of the "Summary," the illustrations have been made from photographs taken by an inmate operator, and from drawings made by inmates; the etchings were made on the premises by inmates in that special department, and the entire pamphlet (including the annual report) was printed on the reformatory press, and bound at the reformatory book-bindery." The illustrations are nearly fifty in number, half-a-dozen of them representing various aspects of the Physical Culture Department. It must be remembered that the "inmates" of Elmira are ordinary criminals, many of whom would here be convicts. It may be added that of the 324 men discharged on parole during the year, 148 went directly to the trades learned at the reformatory, 127 took other situations in expectation of adopting later on the trades they had learnt, and 49 were given paid employment at the reformatory.

*Les Grands Criminels de Vienne. Étude Anthropologique des Cerveaux et des Crânes de la Collection Hoffmann. Par le Professeur Benedikt. I. Hugo Schenk.* ("Archives de l'Anthropologie Criminelle," 15 May, 1891).

This is an interesting study, carried out in Prof. Benedikt's usual elaborate style, of an interesting subject, and is illustrated

by a number of tables and diagrams. Hugo Schenk was accustomed to form *liaisons* with old and ugly cooks, and when he grew tired of them, which was usually very soon, he sometimes murdered them. He appears to have been gifted with unusual sexual vigour, and being of a lazy disposition he exercised it for a living. Sometimes, however, his victims were young and honest girls, of whom also he soon grew tired. He was handsome, very intelligent, and an excellent talker. If he had been born a "*grand seigneur*" Benedikt thinks that he would have had a most happy and successful career; and on account of his eloquence would probably have attained high eminence as a statesman. He was executed at the age of 36.

The total weight of the brain was 1,455 grammes. This weight was not, however, in proportion to the cranial capacity (1,700 c.c.m.), and there was a considerable amount of hydrocephalus. The brain alone weighed 1,261 gr.; the left hemisphere being 629 gr., the right, 632 gr.; the cerebellum weighed 194 gr. The brain was very abnormal; thus the hippocampal convolution was separated from the posterior parts of the brain by a fissure (called by Benedikt limbic, or fissure of Broca), which Giacomini had only observed once in man, and then in an idiot. The frontal and parietal lobes on the left side (especially the first parietal convolution) were found to be very small, though here and there abnormally large and with frequent peculiarities. On the other hand there was an enormous development of the external part of the occipital lobe. The brain was therefore marked by a multiplicity of points both of over-development and of under-development. Benedikt hesitatingly suggests the possibility of a connection between the vicious cerebral development of this subject and his excessive sexual activity. "Knowing the intimate relations of the sexual life with all the elements of the intellectual life, with the most various sentiments, with the energy of the will, with the intensity of life generally, and with the visual and cutaneous impressions, it may be said that the centres of sexual life should be found on various points of the cerebral surface. . . In presence of this case one may in fact ask oneself if the occipital lobe and the neighbouring parts of the temporal lobe are not the centres of the sexual faculty; and if this centre is not unilateral and on the left side. One may also ask whether the sexual centre does not possess other localized spots, on the left in the two central ascending convolutions, on the right in the anterior central convolutions and the second parietal." He also suggests that this point might be elucidated by the comparative study of normal and castrated animals; he had begun researches in this direction, but found difficulty in obtaining suitable brains.

On turning to the skull the face is found to be very well developed, the dentition complete and regular, the lower jaw "classic," the orbits large and remarkably high, and the face

generally symmetrical. The head, on the other hand, is very abnormal. The sutures are united to an extraordinary and almost pathological extent for the age (36); internally there are only traces of the sagittal suture; the coronary, lambdoid, sphenoidal and sphenoccipital sutures have disappeared. The cranial asymmetry is also very great, even on simple inspection; thus the parietal region is larger on the right, the parieto-occipital on the left. It is, however, impossible to summarize Prof. Benedikt's minute examination of the various cranial abnormalities. This is the first of a series of studies which promises to be of considerable interest.

*Un Faux Regicide.* Par Les Drs. G. Ballet et P. Garnier.  
("Archives de l'Anthropologie Criminelle," 15th May, 1891.)

This is a report on the mental condition of a man, M. J., who discharged a revolver, having first removed the bullet, in the presence of the President of the Republic. There were no physical peculiarities worthy of mention; the forehead was rather large, the aspect mild. The prisoner speaks with difficulty and cannot easily find the right word. But he seems pleased to talk about the adventures and miseries of his life, and his narrative, though rather confused, has every appearance of perfect sincerity. He has been always in search of inventions and of the solution of problems which are perhaps insoluble. When this tendency is allied to a strong intellect, it may result in genius; when, however, as in this case, the intellectual faculties are feeble, it can only lead to misfortune or even insanity. M. J. is neither a genius nor insane; he belongs to the group which may be described as unbalanced, some of the mental faculties being remarkably developed, while others are almost embryonic. M. J. has always had a taste for mechanics, which has at last become a passion with him. His father would not encourage his tastes and he left home at the age of fifteen. Ever since he has been pursuing his ideal, and endeavouring to save money for his mechanical hobbies. His occupation has usually been that of a waiter in a *café*; he has never been able to be a waiter in a restaurant, because his memory is so bad. Everywhere he has met with misfortunes and disappointments. He exhibited his inventions, some of which, especially a mechanical bed, showed great skill and ingenuity. Yet he has always had a feeble memory and was not able to learn at school. "I can easily understand the working of a machine," he said, "but I cannot recall words or names." But even his inventions are often absurd, and there is no doubt that he is intellectually weak. He has an enthusiastic belief in his own skill, and has long sought means to overcome the indifference of the public. All his attempts to attract attention failed, and he resolved, at last, to discharge a revolver as the President was passing. He meditated his act and was responsible, conclude

Drs. Ballet and Garnier, but he had no criminal intention. He is weak-minded; he is a candidate for insanity, though a candidate who may never arrive. The right place for him is a work-room, not an asylum. In consequence of this report M. J. was liberated.

Dr. Emile Laurent: *L'Année Criminelle* (1889-1890). Lyons and Paris, 1891.

It can scarcely be said that this volume is worthy of the reputation of the author of the "*Habitués des Prisons*." It is the first of a series in which the "celebrated" criminals of the year are to be scientifically classed and analyzed, and the motives and consequences of their crimes considered. "These analyses will thus be," says Dr. Laurent, "studies in criminal psychology, at the same time as studies in moral hygiene." And a short preface by M. Tarde, written in his usual thoughtful and felicitous style, expresses the same idea. But the greater part of the book is founded on ordinary newspaper reports, and, notwithstanding the intelligence with which they are treated, such reports are extremely unsatisfactory from a scientific standpoint. The most interesting section of the volume is that dealing with political criminals, and the interest of this is due to the fact that here Dr. Laurent has taken a wider outlook, not confining himself within the limits he had prescribed. He maintains that political criminals, more even than ordinary criminals, are eccentric and mentally unhinged, or even sometimes feeble-minded. "From the physical point of view, also, political criminals appear to me to present certain particular characters. I have examined a great many portraits of regicides and revolutionaries, and I have found—I do not say constantly or fatally, but with remarkable frequency—certain morphological abnormalities, exaggerated prominence of the orbital arches and of the cheek-bones, prognathism or elongation of the lower jaw, and, in women, the characteristics of virile physiognomy, already noted by Lacassagne and Lombroso as common among criminals, and, I would add, among the insane." There is a curious chapter on Boulanger and the Boulangists, in which the physical and moral characteristics of Boulanger and his followers, Rochefort, Dillon, and Naquet, are presented in a very unpleasant light as abnormal, eccentric, or feeble. Dr. Laurent finds some significance in the fact that a year or two ago Boulanger was extremely popular among the insane and imbecile in asylums. The volume is illustrated by twenty-four portraits.

*Le Crime en Pays Créoles.* Par le Dr. A. Corre. Lyons and Paris.

This "natural history of crime, as it may be observed in countries of old French civilization, but of distinct races and opposite tendencies," is by the author of "*Les Criminels*" and of other



valuable monographs in criminal anthropology; his experience of Creole lands has been gained both as physician and magistrate. The term Creoles (*criollos*), applied originally only to children of white race born in regions conquered and exploited by their fathers, is now extended to all elements of the population, white and black, found on the spot. Dr. Corre deals with Martinique, Guadeloupe, Guiana, and Réunion, and considers the general evolution and history of criminality in Creole countries, the general factors of local criminality, the special forms of Creole criminality, and the forms of imported (coolie) criminality. A considerable portion of the book deals with the painful record of the cruelty and oppression of the whites towards the blacks. The epoch of emancipation led to a period in which both sides practised abominations. Now, criminality is diminishing, though it is still large. Emancipation, Dr. Corre concludes, has certainly ameliorated the negro. His chief motives of crime are passion and superstition; his sexual instincts are strong and he is quarrelsome, but not cruel; he has few needs and is not avaricious. Dr. Corre is strongly of opinion that the social order best adapted to the white races is not suited to the negro.

*L'Anthropologie Criminelle.* Par le Dr. Xavier Francotte.  
Bruxelles, 1890.

In this reprint from the "*Revue des Questions Scientifiques*," Professor Francotte, of Liège University, brings together into a small space a considerable mass of the alleged data of criminal anthropology. The author's own conclusions are confused and uncertain. At one moment he appears to accept the scientific attitude in approaching these questions of medical jurisprudence, and the next moment he faces the opposite way. He is hardy enough to affirm that the treatment of the body can have no influence on the passions and vices of the mind, and considers that the prison chaplain is amply competent to cope with crime. The experience of Elmira may be unknown to Professor Francotte, but Elmira is founded on a truth which was known very long before the reformatory was established. In conclusion, the writer repeats a very reasonable wish, often expressed before, that lawyers should be initiated in legal medicine and criminal anthropology. The lawyer must either be competent to decide in medico-legal matters, or he must, to some extent, give place to a competent medico-legal tribunal. There seems to be no other way of stating this dilemma.

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E ALT-SCHERBITZ

REFERENCES

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| 1. STEWARDS OFFICES  | 21. SHED   |
| 2. OBSERVATION and RECEPTION ROOMS for WOMEN 1st & 2nd Cl. | 22. BARN   |
| 3. Do. Do. MEN do.   | 23. PIGSTY                                       |
| 4. Do. Do. WOMEN 3rd Cl.                                   | 24. SLAUGHTER HOUSE                              |
| 5. Do. Do. MEN do.   | 25. HEN HOUSE                                    |
| 6. INFIRMARY FOR WOMEN                                     | 26. INSPECTOR'S DWELLING AND INFIRMARY FOR WOMEN |
| 7. Do. MEN   | 27. STABLES INFIRMARY FOR MEN                    |
| 8. HOUSE OF DETENTION FOR WOMEN                            | 28. SUPERINTENDENT'S OFFICES                     |
| 9. Do. Do. MEN   | 29. ASSEMBLY ROOMS                               |
| 10. HOSPITAL   | 30. DWELLING HOUSE FOR OFFICIALS                 |
| 11. OBSERVATION STATION FOR WOMEN                          | 31. THRESHING FLOOR                              |
| 12. Do. Do. MEN  | 32. OLD INN                                      |
| 13. POST MORTEM HOUSE                                      | 33. DETACHED VILLAS FOR MEN                      |
| 14. WATER TOWER  | 34. GREENHOUSE                                   |
| 15. KITCHEN BUILDINGS                                      | 35. WORKSHOPS FOR 40 MEN.                        |
| 16. LAUNDRY  | 36. BRICK KILN                                   |
| 17. DETACHED VILLAS FOR WOMEN                              | 37. DRYING SHEDS                                 |
| 18. MORTUARY   | 38. INFIRMARY FOR WOMEN                          |
| 19. BREWERY  | 39. Do. MEN                                      |
| 20. SHEEP AND CATTLE HOUSES                                | 40. OFFICES                                      |

PLAN  
OF THE  
PROVINCIAL INSANE ASYLUM  
OF THE  
ESTATE OF ALT-SCHERBITZ



THE ALT-SCHERBITZ ASYLUM.

2. *German Retrospect.*

By D. HACK TUKE, F.R.C.P.

So much attention has been directed for some considerable time, and is more especially at the present moment, to the provision for the insane in separate buildings on the same estate, that we have thought it would be of some interest and profit to give a brief description of the now celebrated asylum in Germany, near Leipzig, called "Alt-Scherbitz," which we visited last autumn. A plan is appended, as we think there ought to be a permanent record of it in this Journal.

We give, at the same time, a short description of another asylum we visited in Germany, "Gabersee," near Munich, the buildings of which are arranged on the same principle.

These are examples of the pavilion, or, as some term it, the cottage plan. In a few instances the number of patients in one building is larger than was originally associated with the idea of a pavilion—still less a cottage.

To illustrate still more fully the system now gaining an increasing number of supporters among asylum men, we add a few references to asylums of a similar character in the United States, where the principle receives the name of "Segregation," that is to say, "a separation from others" (Johnson). The institutions we have now in view are the Willard Asylum and Kankakee.

Lastly, as in some measure pointing in the same direction, although not so fully carried out, we refer to Craig House, Morningside—which aims at very complete differentiation by classification in separate wards, as well as in distinct buildings—which may profitably be studied in connection with the arrangement of the buildings adopted in Germany and America, to which we are now drawing the attention of the readers of the Journal.

*Alt-Scherbitz.*

We met Dr. Paetz, the medical director of this asylum, at the Berlin Congress, August, 1890, and he kindly made arrangements for our visit, although unable to return home himself at that time. Taking the train from Berlin to Halle, one changes there, and proceeds on the Halle and Leipzig line until the station Schkeuditz is reached. Thence to the asylum of Alt-Scherbitz is an easy walk of little more than a mile. It is one of the asylums of Saxony, the other being situated at Halle. It was projected by John Maurice Koeppé, who was the first superintendent, occupying the post until 1869, when he died, and was succeeded by the present superintendent. The asylum was designed for the curable and incurable of both sexes. A committee, composed of a certain



number of the Assembly of the Province of Saxony, meets from time to time, in order to direct the affairs of the institution. Practically, however, the Medical Superintendent manages the asylum. It is nominally subject to the State. It was opened fifteen years ago.

The impression received on approaching the institution is an agreeable one, and conveys no idea of the object for which it is designed. The road from Schkeuditz to Leipzig goes through the estate. On the estate were fields of corn, some of which was cut, and was being carried in waggons drawn by oxen at the time of our visit. The trees on the grounds half conceal some of the buildings, while the river Elster winds its way through meadow and orchard. When one thinks of some of the gigantic and monotonous structures which have grown up in England as county asylums, one is thankful, indeed, that the spirit, under the influence of which such cumbrous piles of buildings have been too frequently erected, was far away, and could not desecrate this pastoral scene. Dr. Yellowlees could not pronounce Alt-Scherbitz to be "another gigantic mistake."

Dr. Hordt, Assistant Medical Officer, showed us round, and imparted all the information in his power during the two long visits on the succeeding days we spent there. The great help which was rendered us by the very intelligent Carl Wichmann, who has charge of the grounds, and superintends the gardening operations, must be here acknowledged. He has been in England, and speaks English perfectly.

There are six medical men on the staff, including Dr. Paetz, being about one doctor to 116 patients.

Alt-Scherbitz provides for 700 patients, and will eventually allow of 1,000 being under care. Provision is made for the poor, the middle classes, and the rich, the character of the accommodation varying according to the amount paid. One-third of the patients are in the central building, the remaining two-thirds in villas. The average cost per bed, without land, was only 1,000 marks (or £50); the land cost 50,000 marks, or £2,500. One villa cost 43,000 marks, or £2,150, and provides for 30 patients, being at the rate of about £70 per bed (above the average).

Of the 700 patients 630 are either paid for by the parish, or are in very poor circumstances. The remainder—70—belong to a higher class, and consist of two divisions, one paying £80 a year, and the other £40 a year.

For the better patients of the first class the furniture is very good; for the second class the rooms are not quite as well furnished, but are excellent. A villa, providing for some patients of these two classes, was built in the style of a Swiss chalet.

In a villa, providing for 36 patients of the third or pauper class, there were three sitting-rooms downstairs, and three dormitories above. In one bedroom were 13 patients. There is a large dining-

room, where all meet at meals. There is a small kitchen, but the dinners are not cooked in it, but in the one large kitchen, which is provided for the whole asylum.

There is a villa for the same number of patients (36 females) who are excited, but not dangerous. There are four attendants. There is a sewing room, to which poor patients from the central building also come. The airing-court is, in truth, a pleasant garden.

In another villa, for 24 poor women, there were two large dormitories, there being an attendant in each. Here was a sewing-room also, and 15 patients were at work. A patient was sitting under a verandah at the front door. In most of the villas the open-door system is carried out.

The villas have two storeys; the administrative buildings of the central asylum have three storeys.

Although the institution was opened in 1876 some of the buildings are still unfinished, namely, two additional villas for the female and one villa for the male patients. About 80 per cent. (male and female) of the patients are employed; on the farm 130 men are at work. An epileptic patient has the charge of the pigs. There are 80 cows; some of the women patients were engaged in milking. In the fields men patients were cutting the corn, and a group were engaged in shelling peas. There are workshops for carpenters, tailors, etc.

There are pavilions for the men and another for the women of the chronic infirm class, each building containing 50 to 60 patients.

To meet the difficulty arising out of the distance of some of the villas from the central kitchen, the meals are sent in a four-wheeled conveyance. There are tin boxes for the food and the milk. The vehicle is large enough to supply all the separate buildings in two visits, but as the women patients' buildings are near the kitchen they carry a good deal by hand. It occupies about ten minutes for the conveyance to go from the kitchen to the most distant villa.

It should be stated that bricks are made on the estate. Sufficient details have now been given to convey an idea of the kind of provision made for the various classes of patients received into this asylum. In the plan which is appended it will be seen that the central buildings consist of blocks, including the administrative offices, the observation stations for men and women, the hospital in the centre, the houses of detention for both sexes, and the reception rooms for the men and women of the third social class, while outside this central group there is an infirmary and reception rooms for men and women of the first and second class. In front is a large pleasant garden, while to the spectator's right are two buildings of considerable size, called the "Emperor William-Augusta Foundation." The high road to Leipzig, already

mentioned, separates the buildings we have enumerated from the pavilions or cottages. It would be seen that these are scattered about and are surrounded by plantations, fruit gardens, and pleasure grounds, the men's colony being to the east, and the women's on the west. Some of the villas have been in use in former times in one way or other. No. 32 was the old inn.

*Gabersee.*

This is an asylum established near Munich. When completed there will be provision for 500 patients, men and women.

On entering the grounds one sees on the right the administrative building, an unpretentious erection, and a little further on to the left the house of the Medical Superintendent. Next in position is the building in which there is the kitchen, washhouse, mangle and drying rooms, store room, dwelling rooms for the head cook and laundry women, and provision for 16 female patients who work. There is also a sewing and day room.

We then have three entirely distinct pavilions for female patients, the first being for the tranquil, the second for the semi-tranquil, and the third for the excited. These pavilions are separated by gardens and wood from three exactly similar blocks for the male patients.

The pavilions are built of red brick with slate roofs, and consist of ground floor and one storey. There are 30 patients accommodated in each, or, in all, 180, to which number must be added 30 in the house on the farm, 16 in the administrative building, and 16 in the block containing the kitchen and other offices, making a grand total of 242. When the additional buildings are completed the total number of patients will be 500.

The cost of each pavilion ranges from £1,500 to £2,000.

On the general plan of the estate, an unoccupied space to the west remains. Upon this will be erected a pavilion, to be called the reception house, where patients can be admitted in the first instance after admission.

Another pavilion will be used as a hospital. A third will be partly used for accommodating the second medical officer and the chaplain. Lastly, there will be other pavilions in the cottage style, containing from 20 to 30 beds in each.

It must be stated that to the east of the existing pavilions and equi-distant from those for the male and female patients is the chapel, and that still further east is the mortuary and post-mortem room.

About 100 of the men are employed, and about 80 of the women.

The estate covers 250 acres.

All forms of mental disorders are admitted, but there are very few idiots.

The medical staff consists of a Superintendent and two Assistant Medical Officers, or one to 80 patients.

The weekly charge is 8s. 2d. per patient.

No mechanical restraint of any kind is used.

### *Kankakee.*

In the United States there are at least two remarkable institutions built on the principle of providing a large number of buildings distinct from the central one.

In Illinois, the Eastern Hospital for the Insane at Kankakee provides for about 1,500 patients. The cost per bed for the buildings was £112, and including the land £116. It may be stated that the cost per bed of thirty-one institutions for the insane in America, built on the old-fashioned plan, was £236. The number of acres at Kankakee is 476. There are one central and eighteen detached buildings, built of stone with slate roofs. The central building for both sexes, three storeyed, provides for 275 patients. \* Taking the detached buildings, which accommodate 1,225 patients, the cost per bed was only £76. They consist of two storeys. These buildings are about 85 feet apart.

As to the medical staff, we can only state that in addition to the Medical Superintendent, there were three Assistant Medical Officers at the time of our visit in 1884, but at that time there were only 615 patients, some of the buildings being in course of erection. This is a proportion of about one medical officer to 150 patients.

This institution has been in operation sufficiently long to test the wisdom of the plan adopted of a central building with a large number of entirely distinct pavilions. We are able to give the opinion of a high authority who has watched the experiment from the beginning to the present time with great interest. Mr. Frederick Wines says :—"Kankakee has already accomplished all that the originators expected from it. It shattered at a single blow the superstitious veneration formerly felt for the old-fashioned type of hospital construction. The ideas embodied in the Kankakee Asylum have been more or less carried out in three other institutions, namely, at Toledo (Ohio), at Richmond (Indiana), and another in Dakota. A new asylum for pauper insane on Long Island (New York) resembles it, although it owes its inspiration not so much to Kankakee as to Alt-Scherbitz. The other Superintendents of Institutions for the Insane in the United States are beginning to take the ground that a cheaper style of architectural construction is indispensable, and that detached villas in connection with existing asylums are practicable and the best method of providing for an increase of insane patients."



*The Willard Asylum.\**

The other institution in the United States to which we have referred is the Willard Asylum in the State of New York, the object in view being (1), economy of construction; (2), economy of maintenance; (3), facility for taking patients out to work on the farm. It provides for 1,800 patients, the largest number in one asylum in the United States. In the main building there are 600 patients, but the Superintendent considers that half the number would have been much better. There are twenty detached blocks. Experience has convinced the Superintendent that it would have been preferable to have had only 50 patients in each. It is found possible to erect these buildings at a cost of £50 per bed, exclusive of land.

This State Asylum was opened in 1869 for the chronic insane of the indigent class, but we observe that during one year 106 cases of acute mania and eight cases of puerperal mania were admitted, so that it is evidently not restricted to the incurable class. In fact an Act of the Legislature creating the Willard Asylum required that recent as well as chronic cases should be admitted. The guiding principle in the building has been the segregation of patients according to their mental condition, the buildings being so placed that they would permit economical enlargement of the asylum by the erection of similar blocks. It has been found that this plan has materially reduced the cost of construction, favoured a good classification, and increased the health and happiness of the patients. It allows of an increase of accommodation when necessary in such a way as to "obviate the objections to a large establishment under one roof."

The Willard Asylum is stated in a recent report to have involved a total expenditure for the erection of buildings of all kinds, land, furniture, waterworks, and all purposes, except salaries and maintenance, of £297,968, the capacity of the asylum being 1,800 beds, or £165 per bed.

The number and position of the buildings are as follows:—

1. The main building.
2. A group of five buildings for men, 1,400 feet east of the preceding.
3. Further east—1,700 feet—a similar group.
4. An infirmary for 150 men, located 700 feet from the preceding group.
5. An infirmary for 225 women, 1,800 feet east of the same, and one mile from the main building.
6. A detached block for 250 women, 350 feet south of the main building.

\* For the part taken by Dr. Chapin in the organization of this institution see "The Insane in the United States and Canada," by D. Hack Tuke, M.D., 1885.

7. A similar group for women, 400 feet further south.

The Willard Asylum covers an area of 930 acres.

To the foregoing description should be added a statement in a recent article on the institution by one of the medical staff:—

“Since the inception of the Willard plan many asylums have adopted the principle of the segregation of a large number of the insane in separate asylums upon a great farm, with accessible out-of-door work for the strong, and a main hospital or building for acute cases and for the more feeble and infirm. The increased personal liberty which results, the larger freedom enjoyed, the classification of the disturbed and quiet and of the demented, helpless class, which is thus rendered possible has an everlasting effect upon the whole population thus provided for. . . . The nearer an asylum can be made to approach the village household, and still serve the purpose of a useful institution, the better it will become. The poor do not require and do not appreciate extravagant surroundings and palatial structures to which they have never been accustomed in their own homes.”

In the examples we have given there is a full recognition of the institutional as well as the pavilion or cottage system. In insisting on the importance of the latter it is not intended to detract from that of the former. We wish to show, however, that there may be a considerable number of isolated buildings, along with sufficiently effective supervision, and without any practical difficulty in the supply of hot meals from the kitchen in the central building.

#### *Craig House.*

Dr. Clouston in his plans of Craig House has endeavoured to combine the advantages of a central building and villas to as great an extent as possible. How different classes of cases shall be distributed must depend upon the careful consideration of the mental condition and tastes of each patient. It is very important, however, for the guidance of those who are providing accommodation for the insane to have some general rules before them—the outcome of large experience. For this end, we add the distribution of patients, which Dr. Clouston proposes to make in the new building, including the separate houses.

The exact problem before him was to provide accommodation for 190 patients of the more educated and richer classes, each paying from £80 up to £1,000 a year, and on the assumption that he would have about 80 admissions of new cases a year of every kind of mental disorder. He had long before laid down the principle for asylum construction that “the house should be adapted in its various parts to the various mental states of the patients it was to receive,” and he had to provide also for a certain degree of classification for the rates of board paid. The hospital

and the home ideas had to be combined in different degrees in different parts of the new institution according to the mental state of the patients who inhabited them. Before carrying out his principles into stone and lime, Dr. Clouston states that he went carefully and repeatedly over his individual patients at different times, both alone and with his chief heads of departments, classifying them to the best of his judgment according to their medical requirements.

It was thus a classification of individuals each known intimately to him from a medical point of view. The progress of the cases from the acute into the convalescent or chronic stages was taken into account in the classification, each stage being assumed to require a change of ward or house.

Dr. Clouston's final conclusions were as follows, and he has provided for them in his plans:—

The 95 patients of each sex he divided into ten groups. Of these groups three are to live in three distinct and separate houses not attached to the central buildings, or necessarily very near them, one of them being at the seaside twelve miles away, and of the whole number of patients about 25 per cent. are to occupy those three separate houses. The next three groups are to live in three houses—not “wards” or “pavilions,” as ordinarily understood—attached to the central buildings by glass corridors. Those houses will contain about 25 per cent. of the patients. The last four groups are to occupy four wards in the central building, near the medical officers, and consist of the remaining 50 per cent. of the cases. Those wards are to be of two distinct kinds, differently constructed and arranged, two “corridor wards” and two “domestic wards” to give variety.

The first three groups, those in the distinct houses, are to consist mostly of the convalescent and the safe, the moderately sociable, and those generally near sanity and not much liable to deteriorate mentally, in fact, those who would be happier there. The doors of the houses will not be locked, and in each house both sexes may live and dine together. A lady companion will be at the head of each.

The next three groups in the attached houses are to consist of the convalescing, those needing more medical supervision, those who are more or less social. Some of them may need night nursing and attention. One of those attached houses is a Hospital or Infirmary for the sick and those needing much and special bodily nursing and care. A trained bodily nurse is to be in charge, and the patients will dine there. In the other two there will be lady companions for the ladies. All the patients in the attached houses will go to the central dining-rooms in the main building for meals, except the sick. They will go much to this central drawing-room, bowling alley, billiard-rooms, and to other amusements in the evenings. The mildly melancholic cases, for whose

disease amusements are so directly curative, will be chiefly in these attached houses.

The last four groups, those in the four central wards, will consist of the acutely excited, the dangerous, the very suicidal, the cases of chronic excitement, the dirty, the very demented, the very delusional cases, and those who tend to rapidly deteriorate in habits. Nearly all these will dine in the central dining-rooms, of which there are five, to secure classification. Two of these wards will, with the infirmary, be for the reception of most of the acute recent cases who need special study, special care, frequent medical visits, and constant watching by day and night. By means of these arrangements and this classification Dr. Clouston hopes to provide for each patient, in the degree his case requires, the following most desirable things, viz. :—

1. Medical study.
2. Supervision.
3. The therapeutic contact of sound with unsound mind.
4. Recreation.
5. Social enjoyment.
6. Safety.
7. Changes of conditions and surroundings as the symptoms require.
8. Tests of recovery.
9. Individualization.
10. Antagonism to a dull monotony of life.
11. Leaving the institution contented, with the feeling that he had not been shut up and “associated with lunatics” most of the time he had been under treatment.

Dr. Clouston does not advocate these exact arrangements as being necessarily the best for a pauper asylum, but he contends for the application there of the general principles he has followed out.

We might sum up his arrangement for each sex as follows :—

1. Three distinct houses for convalescent and quiet cases, to contain 25 per cent. of the whole.
2. Three houses attached by glass corridors—one of these being a hospital—for the improving, the quiet, the mild melancholics and the sick, and those needing special nursing and medical care, 25 per cent.
3. Four wards in central buildings near the medical officers—two of them being distinct in arrangement from the other two—for the acute cases, the dirty, the destructive, the very suicidal, the dangerous, and the troublesome, nearly all of whom require constant medical care and observation, 50 per cent.



3. *Therapeutic Retrospect.*

By HARRINGTON SAINSBURY, M.D.

*The Sedative and Hypnotic Action of Atropine and Duboisine.*—Dr. Nicolaus Ostermayer (Budapesth) reports an undoubted sedative action as belonging to atropine, also, indirectly, a hypnotic action, in that the drug by lessening reflex irritability predisposes to sleep. In this latter action atropine would, according to the author's view, resemble the bromides, sleep being favoured by rendering the organism less susceptible to disturbing influences. The author regards atropine as decidedly less certain and less powerful than hyoscine, but as free from the danger of causing collapse. With continued use the dose must be raised. Disagreeable by-effects were witnessed in one case, viz., diarrhœa and vomiting. Atropine may be tried in cases in which morphine and hyoscine have proved ineffectual; it is scarcely a drug to have recourse to in the first instance. The dosage employed was 1-2 mg. ( $\frac{1}{70}$ - $\frac{1}{35}$  grain) pro dosi, injected subcutaneously. The largest dose pro die was 3 mg. (about  $\frac{1}{28}$  grain).

Duboisine, the sulphate, is a prompt and powerful hypnotic and sedative in the stage of excitement of psychic disease. The effects of the drug generally appear in from 10-15 min., and sleep is produced in about 20-30 min. The dose in cases of much excitement should be 2-3 mg. ( $\frac{1}{35}$ - $\frac{1}{25}$  grain), but in sleeplessness without motor unrest half this dose. No serious toxic symptoms or bad after-effects follow these doses. Habituation shows itself with prolonged use. The author recommends the use of duboisine in place of hyoscine, especially in cases of circulatory trouble. Duboisine is much cheaper than hyoscine.

Dr. Serger, of Sachsenberg, reports unfavourably of the use of hyoscine in the treatment of mental diseases; in this he agrees with Gnauck. The inconstancy of the action of hyoscine and the very unpleasant by-effects, *e.g.*, dryness of the throat, difficult swallowing, hebetude and lassitude, but above all important circulatory symptoms, these render the drug unsuitable as a hypnotic and sedative.—"Therap. Monatsh.," Mch., 1891.

These results, apart from their practical significance, are of interest as indicating that these alkaloids, hyoscine, atropine, and duboisine, must be isomers of and not identical with each other.

*Sulphonal.*—A new method of administering this compound is recommended by David D. Stewart in the "Medical News" for 1891, No. 5. The sulphonal is to be dissolved in boiling water, say about 6 oz. ( $\frac{2}{3}$  tumbler), agitation accelerates the solution, then cold water is to be added carefully, so as to cool the drink just sufficiently to enable it to be swallowed. Some flavouring agent,

e.g., peppermint, may be added to cover the bitter taste of the drug. Taken thus sulphonal acts much more promptly and more efficiently.—“Lancet,” Feb. 21, 1891, and “Therap. Monatsh.,” Mch., 1891, p. 216.

*Piperazidine in Mental Affections.*—In the April number of the “Therap. Monatshefte” Drs. Schultze and Umpfenbach report on experiments with piperazidine in the asylums of Bonn and Andernach. In the last number of this Journal we referred to experiments made with piperazidine, and we drew attention to the contrast between its action and that of the spermine of Professor Poehl, with which piperazidine was at first thought to be identical. The present observers confirm the negative aspect of the subject which we then recorded, for they fail to find in piperazidine the powerful tonic action claimed for spermine by Poehl and other observers. Schultze employed the subcutaneous injection of the drug in doses of from 1 centigramme to 1 decigramme ( $\frac{1}{4}$  grain- $1\frac{1}{2}$  grains); he records over 200 injections. The injections were painful, so much so in some cases that they had to be discontinued; they were frequently followed by a weal at the site of the injection, with surrounding hyperæmia, but never was an abscess occasioned. Thirty-three patients received the injections, and of these 11 suffered from melancholia, 4 from stupor, 3 from senile dementia, and 4 from general paralysis. Schultze was unable to detect, either by the finger or sphygmograph, any signs of a more vigorous circulation after the injections. Of sixteen patients whose muscular power was tested by the dynamometer as carefully as the method admits of, only one showed a decided increase of strength. The method, however, is obviously a very coarse and uncertain one, and could only be used advantageously on a large scale. Subjectively, several patients maintained that they felt much stronger after the injections, and that they had slept unusually well; but injections with sodium chloride proved equally beneficial with one exception, that of a case of delirium tremens, who in the convalescent stage suffered much from restless nights and during the day was very fidgety. This patient expressed his sense of improvement after the injections of piperazidine only.

In two cases—one of dementia in a woman, the other a paralytic, a man—the effects, whether post or propter, were harmful. The woman became very restless and garrulous, and in the end had to be transferred to the quarter for restless patients. After improvement, a repetition of the drug in half-dose brought a return of the unrest. The paralytic suffered from an epileptiform attack within twenty-four hours after each of two injections, though for some six weeks before and twenty days after no attacks occurred.

The four cases of stupor were in no wise benefited.

These observations suggest that in piperazidine we have a base which differs from the spermine of Poehl, and, indeed, MM. Majert and Albrect-Schmidt, of the Schering Laboratory, come to this

same conclusion on the ground of the chemical reactions of the two bodies.

Dr. Umpfenbach, working with the same product, viz., Schering's pure piperazidine and the hydrochlorate of piperazidine, administered it by the mouth in doses of 7.5 grains several times per diem, and subcutaneously to the extent of about 4.5 grains pro die. (The watery solutions of these salts do not keep very well, they become turbid.) He records that some pain is excited by the injections, and that induration may follow and persist for some weeks.

Umpfenbach experimented on some sixty cases. In three cases out of eighteen, marked by anergic stupor, there appeared to be some stimulation of the faculties. In melancholiacs no benefit resulted. In three cases of dementia (Blödsinn) an unusual restlessness developed, and in the case of a melancholiac woman with hallucinations the unrest and anxiety were much increased.

In certain cases of nervous affection, e.g., disseminated sclerosis, hereditary chorea, epileptic tremor, tabes dorsalis, piperazidine was tried, but without noteworthy effect.

Umpfenbach concludes that piperazidine does not show any decided effects as a nervine tonic.

A few cases which he records show a decided influence upon the kidneys, the flow of urine being notably increased, and in one case of albuminuria the loss of albumen much diminished. The experiments in this direction are but few.

*Somnal* is reported on by Dr. Umpfenbach in the May number of the "Therap. Monatsh." p. 289. He leaves open the question of the chemical constitution of the body, viz., whether it is a simple mixture of chloral hydrate and urethane in solution in alcohol, or whether it is a definite compound. He employed it in doses of 2-4 grms. at night, rarely 6 grms. (30-60 grains, rarely 90 grains). It was given in water with a little syrup.

On healthy people, attendants, etc., it for the most part gave good results in simple insomnia; in insomnia from pain it did not serve.

In mental cases it was tried on 70 individuals, ranging between the ages of 15-76 years. Twenty-eight of the cases were acute, the remaining 42 were treated during periods of excitement and noisiness; in a few cases only was there simple insomnia. The desired effect was attained permanently in 33 cases, temporarily in 13 cases; in 24 cases it was absent.

Strangely, Umpfenbach finds a very striking difference between the effects of the drug on men and women. It is far more effective with the former. The differences in his results are so marked that according to them *somnal* would be a bad hypnotic for women, but a good one for men (of the 70 cases, 36 were women, 34 men). Where *somnal* was effective it acted in from  $\frac{1}{2}$ - $\frac{3}{4}$  hour, some five hours' good sleep were obtained, and no bad effects followed, with few exceptions. In these latter, headache, confusion, unrest,

vomiting were among the symptoms, but they were not prominent. No case of eruption occurred. The effect of age was not obvious. The general nutrition of the patients did not suffer.

*Nutritive Enemata.*—According to Huber ("Correspond. Blatt. für Schweizer, Aerzte" 29, 1890) eggs are best adapted for injection if given along with salt—for each egg 15 grains of salt. Of the egg about 12 per cent. is absorbed. Each enema should contain two to three eggs, and be given two to three times a day. An hour before the first nutritive injection a cleansing injection of simple water should be given. The injection should be thrown as high up the intestine as possible by means of a long soft tube. From time to time peptone injections should be given, milk and egg, broth and egg, etc. For the intestines also, so we read, the saying holds *variatio delectat*!—"Therap. Monatsh.," May, 1891, p. 319.

*The Treatment of Epilepsy by the Combined Use of Bromides and some Agent capable of producing Anæmia of the Nervous Centres.* By V. POULET, Bulletin général de Thérapeutique.

The following are M. Poulet's conclusions:—

The bromides constitute the basis of the treatment of epilepsy. Among them the bromide of gold does not possess the advantages ascribed to it by some, and must yield the palm to the bromide of potassium.

There are always a number of cases of epilepsy which though benefited by bromide treatment are not as efficiently treated as they admit of being.

In such cases the addition of one of the following drugs, calabar bean, picrotoxine, belladonna, and, in cardiac epilepsy, digitalis, will frequently bring about the desired result, viz., the suppression of the attacks. This will hold in general for epilepsy, pure and simple, as well as for many cases of Jacksonian epilepsy, though in this latter disease the search for the exciting cause, and its removal where possible, must always precede the above palliative treatment.

The sulphates of eserine (physostigmine) and atropine may replace the use of the crude drugs, calabar bean and belladonna, and digitaline may replace digitalis.

The selection from among these drugs will be in most cases haphazard.

The doses suggested by M. Poulet are:  $\frac{1}{4}$  to  $\frac{1}{8}$  grain of sulphate of eserine or picrotoxine, and  $\frac{1}{70}$ – $\frac{1}{80}$  grain of atropine sulphate in addition to the bromides, which the author gives in general to the extent of 75–90 grains to women, 105–120 grains to men. These, of course, will be pro-die doses. In place of the alkaloids about 30 drops of the tincture of calabar bean or 12 grains of the powdered bean; 30 drops of the tincture of belladonna or 7.5 grains of the powder.



In cardiac epilepsy 24-30 drops of the tincture of digitalis or about four grains of the powder may be given along with the bromides.

The doses of the tinctures will be of preparations according to the Codex Français.

*Antipyrine in Mental Disease.* By M. ROSCIOLI. "Annuaire de Thérapeutique," p. 125.

The author has employed antipyrine in doses ranging between 4-7 grammes (60-105 grains) pro die in the treatment of epilepsy, with the result of diminishing the number of attacks. Antipyrine thus used acts more rapidly than bromides, but less enduringly. The mental torpidity of bromism tending even to dementia is not observed in the case of antipyrine, or rather, it should be said, that the torpidity of antipyrine is very fugitive. Antipyrine has completely failed in the hands of M. Roscioli in the treatment of mania, of melancholia, and of general paralysis, *i.e.*, it has failed as sedative and as hypnotic (*Il Manicomio moderne*).

*The Insomnia of Children.* "Annuaire de Thérapeutique," p. 143.

M. Jules Simon, commenting on the treatment of infantile insomnia, insists on the value of opium, which, in spite of the endeavour to proscribe it, is "the king of hypnotics." The precautions to be adopted in the case of opium are to withhold it if there be constipation, scanty urine or pruritus (?) (*démangeaisons*). Saving such, to administer it in half-drop doses under twelve months, and for each year above this to add one drop of opium to the mixture.

The syrup of codeine is an excellent hypnotic. Dose, one teaspoonful of the syrup in a mixture if the child be a year old, half a teaspoonful if under one year.

The bromides may be given in 4·5 grain dose at six months, 7·5 grains at one year, after this in 15 grain dose. These represent the total dose pro die; it is best given at one time, *horâ somni*. The administration should be interrupted after 5-6 days, and then resumed. Chloral may be administered in the same doses as the bromides, and best as an injection in emulsion in the yolk of an egg, along with a little camphor water. Chloral is especially indicated if convulsions threaten.

[We should be inclined to hold the dosage of chloral here prescribed as unsafe. Fifteen grains of chloral for a child of, say, 2!]

4. *Swiss Retrospect.*

*Histological Technique of the Central Nervous System. Methods of Staining.* By A. MERCIER, M.D., Assistant Physician in Burg-hölzli Asylum, Zürich.\*

In dealing with this subject I must mention the preliminary steps in the preparation of sections, and since the hardening of pieces of the central nervous system is perhaps the most important part of the whole process, it will be necessary to enter into many details which are not usually given. I shall also have to describe shortly the manipulation of sections, and, to ensure success, may have to describe things which may seem foreign to the subject, but which are really essential. The subject will be divided into sections.

## SECTION I.

Portions of the central nervous system which are to be hardened must first be carefully removed. The best method after removal of the brain and spinal cord (the dura mater of the latter having been opened up) is to cut the tissue into smallish pieces, *e.g.*, not exceeding two or three c.m. across. The site whence each portion was obtained is to be recognized by placing each in a separate and labelled vessel. This should be done as soon as possible after death, care being taken that the pieces do not get soiled in any way. They must not be touched with the fingers, but the whole operation performed with scalpel and forceps only; these instruments must be handled most delicately. Pieces must not be washed before being put into the hardening fluid. If the pia-arachnoid is not easily separable the piece must be allowed to harden in the fluid till the membranes can be removed with safety.

As to hardening liquids, alcohol serves well for anatomical preparations, but not for the preparation of sections which are to be stained, since some reagents, *e.g.*, carmine, fail to stain sections which have been in alcohol, even for a short time.

Potassium bichromate is essential for hardening purposes when the myelin fibres are to be stained. The liquid most usually employed is known as Müller's liquid. Its formula is:—

Potassium Bichromate	20 grammes.
Sulphate of Potash	10    "
Distilled water	1000   "

Although this liquid enjoys a great reputation, its employment has appeared to me to have some disadvantages, *e.g.*, it hardens unequally. This is most observable when large pieces are taken; but even small pieces may not be hardened centrally when the outside is quite hard. This is the experience of others besides myself. Moreover, several methods of staining are not available when Müller's liquid has been used. The solution I prefer is a weak solution of bichromate of potash: such will harden the piece equally throughout.

A common fault in the hardening of tissues is the employment of too small a quantity of liquid. For five or six of the small pieces mentioned above the minimum quantity must be not less than 50 c.cm. For large pieces the quantity

\* Having had an opportunity of seeing Dr. Mercier's beautiful sections of the cord in the laboratory of the Zürich Asylum last autumn, we requested him to favour us with his method of staining, etc.—EDS.

to be employed must be proportionately large, *e.g.*, for the hemispheres four or five litres, for the cerebellum two or three litres, for the medulla oblongata, pons and crura approximately one litre.

The next fault, almost always committed, is to allow the pieces to remain too long in the same quantity of liquid. Fresh pieces decompose sooner or later even in solutions of bichromate of potash. The products of this decomposition foul the liquid, and after a short time such pieces become mouldy. It is no wonder then that pieces are so often badly hardened and cannot be properly stained. During the first eight days of hardening the liquid ought to be changed every 48 hours, after this time it should be changed weekly till the desired hardness is obtained. Bichromate of potash being an inexpensive substance fresh solutions should be prepared each time.

The position of small pieces need not be changed, since in the changing of the liquid this will take place to the needful extent. But when large pieces are taken it is necessary to change their position frequently. In the case of the hemispheres, cerebellum, etc., the parts should rest upon a layer of wadding, and wadding must also be inserted between the two hemispheres and between the cerebellum and the medulla in order to prevent the apposition of two brain surfaces. The position of these large pieces must, as has been said, be frequently changed. In each case the object in view is to have every part in contact with as much fluid as possible. I consider that vessels which contain pieces for hardening must always be kept in the dark, for daylight decomposes the bichromate. The vessels must also be well covered.

For the first days when small pieces are taken it is quite sufficient to employ a solution of  $1\frac{1}{2}\%$ . After this, and for large pieces earlier, the solutions should be stronger— $2\%$  to  $2\frac{1}{2}\%$ . It is necessary to remember that pieces of the spinal cord harden more quickly than pieces of the brain and medulla oblongata, and that in the case of the lower animals pieces harden more quickly than in the case of the higher species. No general rule, however, can be laid down respecting this. The solutions should be made, especially at the commencement of the process, with distilled water. Solutions containing pieces keep better with the addition of small pieces of camphor.

The time which is necessary to obtain the desired degree of hardness is very variable; it depends on many circumstances, *e.g.*, the nature of the piece, its freshness, the care employed in changing the liquid, etc., and the temperature of the liquid (with regard to this last I do not hold that there is any advantage in raising the temperature, though, no doubt, a medium temperature is better than a low one).

The hardening process takes place generally in from two to four months when the pieces are of moderate size; the whole brain will not take less than five or six months, while on the other hand small pieces will harden in from four to six weeks.

The right degree of hardness is recognized by experience; a well hardened piece is capable of being cut easily in thin slices with a well whetted razor. The hardness should be combined with a slight elasticity, the colour of the grey and and white substance should be nearly the same. Over-hardening is a danger to be avoided, since pieces cannot then be well cut, as they are too brittle. Further, they stain badly afterwards. A well hardened piece, if for some reason it cannot be immediately cut, may be kept for some time longer in a weak solution of bichromate,  $\frac{1}{4}$  to  $\frac{1}{2}$  or  $1\%$ , to which a small piece of camphor has been added.

The next point to determine is the nature of the histological elements which we specially desire to study. On this question depends the further treatment of the hardened piece, the choice, *e.g.*, of a colouring agent.

Suppose that we wish to study the cells and axis cylinders of a continuous series of sections. We must then soak the piece in water to get rid of the excess of bichromate which it contains; clean water which has been boiled and cooled may serve for this purpose in lieu of distilled water. The water must be changed every day so long as it continues to be coloured by the bichromate. So soon as

this ceases the piece is imbedded in the microtome of Gudden and cut under water and stained according to appropriate methods.

The removal of the bichromate from the hardened piece is accelerated by using the water slightly warmed, and to this end the jar or vessel containing the piece may be placed in a warm place, *e.g.*, near a stove.

Should we desire to stain the myeline fibres as well as the cells and axis cylinders we shall have need to employ a combined or mixed method. The hardened piece is now embedded directly in the microtome of Gudden and cut into sections. Of the sections thus obtained we put aside a certain number for treatment by the method to be described later—for staining myeline fibres. The others, in which the cells and axis cylinders are to be coloured, are placed in distilled water, where they get rid of their excess of chrome salt. They are then stained with carmine or aniline, etc. The reason for this procedure is that the chrome salt is necessary to fix the colouring matter employed to stain the myeline fibres, whilst on the other hand cells and axis cylinders, which are strongly impregnated with chrome salts, will not take carmine and aniline dyes. We have therefore to keep the chrome salt in the one instance and to get rid of it in the other.

The preliminary preparation of *pieces* whose sections are to be stained for myeline fibres only is as follows:—The piece is placed in alcohol 70% and left there for a certain time; it is then imbedded in celloidin, and subsequently undergoes a special treatment to be described further on. Special microtomes, not that of Gudden, are employed to cut these sections.

Accordingly we may proceed according to three methods:—

*a.* We may cut with the microtome of Gudden and stain the sections for cells and axis cylinders only.

*b.* We may cut with the microtome of Gudden and treat the sections obtained in two ways—1st, for axis cylinders and cells as above, 2nd, for myeline fibres by a modified Weigert process.

*c.* We may adopt from the first a special method of cutting sections and of staining in order to demonstrate the myeline fibres—method of Weigert and of Pal.

(*To be continued.*)

## PART IV.—NOTES AND NEWS.

### MEDICO-PSYCHOLOGICAL ASSOCIATION.

The quarterly meeting of the Association was held at Brislington House, Bristol, on Friday, May 1st, at 3 p.m. The chair was taken by Dr. Yellowlees (the President), and among those present were:—Dr. Hack Tuke, Dr. Fletcher Beach, Dr. Thos. Webster, Dr. E. Markham Skerrett, Dr. Geo. H. Savage, Dr. David Nicolson, Dr. Charles S. Wigan, Dr. J. H. Paul, Dr. E. B. Whitcombe, Dr. R. Percy Smith, Dr. Samuel Craddock, Dr. T. Outterson Wood, Dr. T. Seymour Tuke, Dr. H. T. Pringle, Dr. Ernest W. White, Dr. A. Law Wade, Dr. A. C. Suffern, Dr. L. A. Weatherly, Dr. John Ewens, Dr. Augustin Prichard, Dr. J. Michell Clarke, Dr. Vincent Milner, Dr. Samuel Smith, Dr. Harry A. Benham, Dr. R. Shingleton Smith, Dr. F. G. Heyman, Dr. Wm. A. Moynan, Dr. H. Rayner, Dr. M. J. Nolan, Dr. Charles H. Fox, Dr. Bonville B. Fox, Dr. W. J. Pyffe, Dr. J. Hannocke Wathen.

The PRESIDENT—I think we must proceed to business, and happily for ourselves and our visitors the business shall be very brief. The first part is pleasant; it relates to the next annual meeting, and the Council have fixed the date of that meeting for the 23rd July, and the place of meeting will be



Birmingham (hear, hear), our President there being Dr. Whitcombe. The next matter is the election of new members. (Hear.) I have not troubled you with the minutes of the last meeting because they are in the Journal; therefore we now come to the election of new members, and there are before us seven names, namely, Dr. James Henry Earls, of Fairholme, Weybridge; Mr. William Harris Heygate, of Cranmere, Cosham, Hants; Mr. Archibald Robertson Douglas, Assistant-Medical Officer at the East Riding Asylum, Beverley; Mr. George M. P. Braine-Hartnell, Senior Assistant-Medical Officer, County and City Asylum, Powick, Worcester; Dr. W. Gordon Sanders, Pathological Assistant-Medical Officer County Asylum, Rainhill; Mr. T. E. K. Stansfield, Junior Assistant-Medical Officer and Pathologist, Banstead Asylum, Sutton, Surrey; and Dr. Charles A. Mercier, Lecturer on Insanity, Westminster Hospital. These gentlemen, seven in all, are duly certified by members of the Association, and the recommendation is concurred in as required by two other members, and the ballot-box will now go round. According to our habit we will ballot for the seven names, and if there are any "Noes" we ballot again.

The Hon. General Secretary (Dr. Fletcher Beach) took the ballot, and after scrutiny,

The PRESIDENT said—I have now to announce that these seven gentlemen are all elected members of the Association. The next matter is an announcement on behalf of Dr. Benham, that he will be glad to see any members to look over the Stapleton Asylum to-morrow. I have not been there for many years, but I know it was quite worth seeing when I was there, and I am sure it is now. When we decided to come to Bristol, Dr. Hack Tuke was kind enough to say that he would read a paper on Prichard and Symonds, and I have now great pleasure in calling upon him to read a paper on "Prichard and Symonds in Especial Relation to Mental Science." (See Original Articles.)

After the reading of the paper, Dr. Tuke handed round a framed portrait of Dr. Prichard, and a photograph of Dr. Symonds.

The PRESIDENT—I am sure we are all very greatly indebted to Dr. Tuke for this most interesting paper, all the more interesting because it has so much in it that is personal as well as professional. I shall be glad to hear any remarks, not necessarily confined to the subjects of the paper, but dealing with the great doctrine which Prichard advocated and Symonds approved. I can hardly expect you to add to the tribute that has been paid to the memory of these men by the reader of the paper, and so worthily paid.

Dr. NICOLSON (Broadmoor)—Personally I feel that I owe a debt of thanks to Dr. Tuke for his interesting paper, and I am sure that all the members of the Association and the visitors, the members of the local branches of the profession who have honoured us by coming here to-day, will feel that we have every reason to be grateful, not only for Dr. Tuke's reading a paper, but for his taking up the careers of two physicians whose names are household words to us (hear, hear), who live very much in the memory of Bristol people. Moreover, they will carry weight for anything that they have ever said upon the speciality to which we belong. I can hardly imagine a subject more in accordance with Dr. Hack Tuke's sympathies than that which he has put before us this afternoon. After the admirable luncheon at which we have been entertained, I thought that any paper must be torpid and heavy (laughter), but my anticipation has not been realized. (Hear, hear.) The question of moral insanity which Dr. Prichard foresaw so clearly and defended so strongly is one in regard to which we are only now seeing the practical results arising from what were in his time more or less matters of theory. And it is the more to the credit of one who lived in those, what we may call darker days of superstitious notions about things, to have evolved this and brought it into the clear daylight of science, so that in our day it should be capable of bearing good fruit, as it undoubtedly does. Having been 25 years connected with criminals at all angles, I suppose I may claim some kind of right to say something on this subject. (Hear.) Moral insanity is a subject that can, no doubt, be made too much of, like everything

else, and in individual cases we have to be careful not to let our feelings carry us away, otherwise a most objectionable result will come of it. If we were to screen a man whose mere moral obliquity had brought him to a court of law, if we were to allow the term to be too influential in our minds, we would be thwarting justice and cutting our own throats as men who were endeavouring to carry out scientific ideas; so that instead of carrying weight in the courts of law we would be laughed at. With that caution I think we may very safely allow ourselves to accept it as a fact that there is such a condition of mind as may be rightly and properly described as "moral insanity." But then we must be careful not to allow this term to be a stepping-stone to the criminal to evade justice. It being a term which is less acceptable than some others to the legal minds on the Bench, we must be very careful not to make it a convenience in our difficult cases, when we have to give an opinion in cases where the individual has committed a criminal act. I can only say from my own experience in prisons that we have it very largely demonstrated that there may be cases of insanity in which the intellectual faculties are not involved; and a very brief experience amongst convicts and amongst prisoners will satisfy anyone who turns his mind to the subject that such and such an individual is perfectly capable of reckoning up the value of his conduct, but that he is unable, whether under measures of repression or under measures of the utmost possible kindness, to conduct himself as he knows he ought to; so that there can be no question about the existence of a condition of the moral sense which has to be borne in mind in dealing with individuals at this angle: and the fact is now universally observed and given attention to in all regulations in regard to convicts, that certain individuals are unable to behave themselves in the face either of whipping or kindness; and this consideration has compelled the authorities, even against their own will, to introduce measures of leniency in certain instances where they find that the ordinary penal discipline fails to take effect. These cases are very numerous, and have largely compelled our prison authorities to modify the old—what is now called hard—treatment towards those who come under their sway, so that that may be taken as a practical outcome of Dr. Prichard's life and work. And I think we may point to that distinctly as one of the ultimate and present outcomes of the grave and responsible work he initiated. When we come to moral insanity in relation to such a case as murder we all know that the attachments, the emotions, and affections generally must be considered before we can say whether the insanity is such as would warrant the reprieve of a man from punishment. I am extremely reluctant to say that, in any cases, we are able to admit it. We have to get an amount of cumulative evidence, not only with regard to his relations to the individual killed, but also as to his impressions at the time, and his antecedents, so that unless we have some other evidence we scarcely are able to point to merely moral conditions, or rather the absence of moral conditions, as sufficient grounds for saying, "You are doing wrong if you inflict any degree or measure of punishment upon that individual." And I think there are instances in which, although we have moral insanity or grave moral obliquity, we are not able to avoid inflicting some kind of punishment just as you would punish a child that had done some moral wrong or had committed some offence, although you would not punish it by death. I ask you, Mr. President, to allow me to convey to Dr. Hack Tuke the thanks of this meeting for his extremely interesting and able paper. (Applause.)

Dr. SAVAGE—My professional paths have led me to an experience of criminality as well as insanity. Now one has to recognize that the moral and the intellectual grade one into the other; that one sees cases in which there is a very slight, almost imperceptible, intellectual perversion and very great moral perversion—however difficult it may be to meet with absolutely pure cases of moral insanity. We see certain individuals who do not grow up into moral manhood, and on the other hand one sees many degenerate through insanity into moral weakness. One

feels that one may have too much of a good thing, and I must say that some of the anthropologists, and criminal anthropologists of Italy, are going very far indeed. A reviewer recently wrote: "It seems to me that in the next generation we shall hang at sight." (Laughter.) That is, we shall hang on such and such a face at once and there will be no further evidence. We shall then agree that a certain formation of head, chin, or nose implies "that man must be bad." Some of us who have had experience with the foreigner from Central Europe, in America, know that he was willing to place his hand upon you or me and say "Forger," and of course he was able to say "If you live long enough you will become so." (Laughter.) Joking apart we have the fact that there are certain cases in which moral insanity is detected, and where intellectual insanity cannot be detected at all. One would, however, hesitate to accept the moral insanity that could be detected by either the reflexes, or the shape of the head, or any one physical characteristic. In nearly all these cases it is a question of cumulative evidence, and there is no doubt that the chronic lunatic and the true criminal do approach one another very much indeed in the type of face and body. I can only add that one feels particular pleasure in hearing this paper at the scene of the work of these eminent men. We, all of us, feel much pleasure in coming here, and still greater pleasure in having heard such an interesting paper; and I trust that some of our local friends and brother members will contribute something to the subject.

THE PRESIDENT—There is Dr. Prichard's son among us. (Applause.) For his father's sake as well as his own we would like to hear his voice. (Hear, hear.)

Dr. PRICHARD, who was received with applause, said—Mr. President, I feel, with others, very much obliged to Dr. Tuke for the paper he has read, but I am entirely unqualified to discuss this matter. My lines of life have been entirely different from that in which you are employed and in which my father was employed, and I really should not be able to discuss with any of you the question of moral insanity, firmly as I am convinced of the existence of such a disease. I rise as you have asked me to do so. I felt very much pleasure in listening to Dr. Tuke's paper, and feel very much obliged to Dr. Bonville Fox for asking me to come to this very pleasant meeting. (Applause.)

THE PRESIDENT—With regard to moral insanity it has always seemed to me that the most significant proof of its real nature, the proof that it is disease and not mere depravity, is found in the subsequent history of the cases. If you watch the progress of confirmed cases you find in the course of years that they gradually deteriorate and eventually sink into dementia. I have in my mind several cases in which moral perversion was for long periods the only sign of the brain degeneration in which they terminated. I should like to ask Dr. Nicolson whether this accords with his large experience.

Dr. NICOLSON—I am a little bit handicapped in having to deal with such a question on the spur of the moment, but I will say that a great many of the convicts, whose acquaintance I made twenty years ago, and who used to be sent from prison to prison—I mean men who were not insane enough to be moved to an asylum, but who were unable to be dealt with under the ordinary prison rules—we all remember the cases of men unable to bear the prison discipline, and I can say that these men—a number of these men—we now have in asylums who have come there, not through the prisons, but by direct transmission from social conditions to asylum life. And I have a strong feeling, especially in recent years when there is a cry about the diminution of crime, or in the number of criminal occupants of prisons, that at the same time we find that our asylums are becoming more largely populated. I am quite sure that there is a considerable element of that explainable on this footing—that men formerly dealt with purely on the criminal footing subsequently become so insane that they are placed in asylums and become chronic demented, and thereby diminish day by day the number of prison occupants. I think this is well worth working out; as the important question of early diagnosis



of insanity will show one of the reasons why the number of prisoners is diminished. Of course there are the training ships and schools for street arabs and individuals of that class, and these tend to relieve prisons of a certain proportion of inmates, as well as a great many other philanthropic schemes. The Discharged Prisoners' Aid Society is also an element in the matter. But after all I think it will very likely be found—the relative proportion being in the inverse ratio that the fewer we have in prisons the more we have in asylums—that these will be observed to be explainable in relation to each other. Of course I am only giving what is my own impression; yet there is a good deal in the facts that asylum life is very different from what it used to be, that relations are more willing to allow their afflicted to be placed in asylums because they are satisfied that asylums are doing what they can for them, and they know that they are better off than they could be at home: and domestic life is so strained now that they could not be bothered with them. I think, Mr. President, that the suggestion you make, so far as I am able to express an opinion, is perfectly correct, and would be proved on the question being investigated. (Applause.)

The PRESIDENT—That is a very interesting answer, and I am glad it was elicited. It confirms the opinion that many cases begin in purely moral insanity, undergo gradual degeneration and sink into dementia ultimately, thus affording the best possible proof that the moral perversion into which they first fell was truly the beginning of the insanity. Very seldom do we meet a case which we can call pure moral insanity. I had one the other day, one of the purest cases I ever met. A man and wife came together to see me, and the man implored me to take care of him because he had a dreadful and unaccountable impulse to kill his wife. They were quite comfortable and happy in their daily life; nothing ailed him so far as he knew. He had no delusion of any kind whatever, but he had this horrible feeling impelling him to kill the wife whom he dearly loved. He is now with me as a voluntary patient, and he does not wish to leave until he gets rid of that feeling. Dr. Nicolson spoke of the perplexity and difficulty of dealing with these moral lunatics, and said you must measure to them some sort of punishment or retribution to mark your sense of the wrongness and your desire to right it. That is to me a most significant confirmation of the wisdom of gradations of punishment according to the mental condition in each case, which I believe to be the only medium course between no hanging at all and the terrible doctrine of hanging at sight, which some one anticipates as a revulsion from undue leniency. (Hear, hear.) Dr. Tuke, we thank you for your paper, and for bringing before us the lives of two such remarkable men as Prichard and Symonds. (Applause.)

Dr. HACK TUKE, in reply, said—I have to thank you for the kind way in which you listened to my paper. I confess I expected when I saw those comfortable couches and easy chairs to see you all fast asleep. (Laughter.) I am glad that this was not altogether the case. I had just finished writing my paper when I received a letter from Dr. Herbert Major, who says he has been consulted about a girl of 14, and goes on to mention a number of defects and delinquencies which indicate moral disease, and then he says, "I am unable to detect any intellectual defect whatever. The child is intelligent, assiduous, and plodding as to lessons, and well behaved in every other way." Now, whether that child becomes in the course of 10 or 20 years a dement does not affect her present condition in the eye of the law should she commit a crime. And therefore if, as the President says, the subsequent condition is a degeneration of the former moral insanity, it does not in the least detract from the position taken by Prichard. It does not affect the question in the eye of the law, because no judge or jury can decide what is to happen 10 or 20 years hence. (Hear, hear.)

Dr. LIONEL WEATHERLY read a paper on "The Use and Abuse of Hyoscine." (See Original Articles.)

The PRESIDENT—We shall be very glad to hear any remarks on this very



practical paper. Not a few gentlemen here have used hyoscine, and it is worth while to let us know something about it.

Dr. PERCY SMITH—I have very little to say about hyoscine. I have used it, of course, for ordinary cases of acute mania, and I cannot say that my results have been so good as those Dr. Weatherly has obtained. I have not found cases in which one or two doses have been given and there has been rapid recovery. My experience is that one has had to go on for some time, as with other drugs, and the effect has been slower than in the experience of the reader of the paper. Then, with regard to the dose, of course one has to begin with small doses, the two-hundredth of a grain given hypodermically, and increase it up to a seventy-fifth or a sixtieth or so, but I do not think I have ever given a larger dose than that, and then one has had to give it two or three times a day. With regard to sleep, Dr. Weatherly said it did not produce ordinary sleep—a profound sleep, and then a less profound sleep—and that has been my experience. I cannot say that I have seen serious effects from hyoscine, but from hyoscyamine there have been serious effects. I suppose there are some patients, however, so susceptible that a two-hundredth of a grain would produce collapse.

Dr. SAVAGE—This being a practical paper, I venture to make a few remarks on the unfavourable side. I know of a case where a two-hundredth of a grain had a fatal effect. The patient was a woman who was extremely maniacal—a woman of 45 or 46—who would have been moved at once to an asylum, and it was a question how to pass the few hours of the night, and it was suggested that there should be artificial food, and that then the two-hundredth of a grain of hyoscine should be given, as there was great difficulty in getting her to take the food. The woman seemed to be sleeping satisfactorily, but from that sleep she never roused. One has seen cases in which a small dose in anæmic or hysterical cases has been injurious—cases in which they have passed rapidly into a stuporous condition. In alcoholic cases one has used it with success, but the cases in which I should use it by preference would be cases of folie circulaire and of recurring maniacal excitement. I have seen no good results following from its use in melancholia.

Dr. NICOLSON—Of course one fatal case makes a great impression. In our maniacal cases at Broadmoor, when hyoscine has been used, it has generally been a hundredth to the seventy-fifth of a grain that has been injected, and it has been beneficial. We do not use hyoscine or any other hypnotic largely, but very carefully, and my experience and that of my colleagues has been that hyoscine is attended with benefit, and has given a quiet night to those who, I am quite sure, would have been outrageously noisy during the whole of it.

Dr. LAW WADE—My experience is decidedly against the hypodermic use of the drug at all. The result has been a state of stupor, and afterwards the patient has been as bad as ever. In cases in which there have been definite general paralysis, chronic restless mania and delirium, advantages may be found by giving it by the mouth. A patient was a long time with me as a quiet, weak-minded man, so that the Guardians were always pressing me to discharge him. I did so very much against my wish, and he returned noisy, dirty, and troublesome. To that man I have given the drug by the mouth, and he is quiet and goes to work in the ordinary way. But hypodermically I have seen no good effect. The patient is knocked down, and there he lies, but as soon as he recovers he is as bad as ever.

Dr. WEATHERLY, replying to the discussion, said—I meant that the drug should be used in distinct and suitable cases of irritability, and in such cases hyoscine seems to tide a patient over that period. I am glad that Dr. Smith bears me out in the opinion that this drug is not so dangerous as hyoscyamine. I protested against the abuse of hyoscine, but if it is properly used I do maintain that it is a very valuable drug; and in cases of hysteria it is almost invaluable. I have found in cases of melancholia that it has no effect at all, and as a rule it produces a very great feeling of fatigue. Dr. Nicolson again seems to

bear me out in my opinion that it is a very useful drug in many cases of excitement and mania.

Dr. BONVILLE FOX read a paper entitled "Notes on a Few Unusual Cases of General Paralysis." (See Clinical Cases.)

The PRESIDENT—I am sure we thank Dr. Fox very much for his valuable paper, and for the admirable record of interesting cases. (Applause.)

Dr. WHITCOMBE—Mr. President, the first case in Dr. Fox's paper recalled to my mind one which I had in the asylum many years ago, in which the patient, a commercial traveller, with a history of drink, came with all the physical and mental symptoms of general paralysis. He went into the stage of complete paralysis, and from that condition he made to all intents and purposes a perfect recovery—such a recovery that he went out and took a situation again as a traveller at the rate of £300 a year, and after he had held it for some eighteen months he returned to the asylum and died in a very short time from general paralysis. I was not a little interested to hear Dr. Fox's treatment of the convulsions in general paralysis, and I must say I have found considerable benefit from hyoscine, probably a better effect than I have found from bromide and chloral. With regard to remarkable recoveries, I should just like to refer to two cases in my experience. The first case was that of a man admitted to Bethlem in 1885. Dr. Savage will remember him perfectly well. He was the captain of a steamer, and came in with a maniacal attack. After a few months of this excitement, with exaltation, he quieted down, and seemed perfectly to recover. There was no tremor left, and there were no physical signs which would make one diagnose paralysis, although it was suspected. He went to sea again, and for 18 months commanded a ship, and the only difference noticed in him was that from having been an extremely arbitrary man, who used extremely bad language to his crew, he had become much more placid and complaisant. Then he returned to England, and rapidly broke down. He became demented, had extreme tremor, and in the course of two months died from epileptiform convulsions. That was a case in which a man apparently recovered, and was able for a period to perform complicated duties. The other case was that of a man admitted at the end of 1884 to Bethlem, and he was supposed to have general paralysis. He had some maniacal excitement, and great inequality of the pupils. There was some blurring of speech and some alteration of handwriting—missing words and letters—and the knee reflexes were affected. Early in 1885 he had serious convulsions, accompanied by temporary loss of power on the left side. But the curious thing was that after the occurrence of these convulsions he improved mentally very much, and he became apparently perfectly well. Then it was pointed out to him that he had probably got a disease which would progress, and it was a serious thing to think of returning to active work, and so he consented to remain as a voluntary boarder, and so he remained until a few weeks ago—over five years. Then he became excitable, his handwriting altered, he left out words and letters, and one has very little doubt that he has reached the final stage. He is occasionally wet, and restless, and unmanageable; tumbles about, and has exalted ideas and schemes for producing great wealth. That seems to be an extremely interesting case considering the question which has been raised of trephining for general paralysis. Here was a case which would seem suited for trephining, but these symptoms all passed off without anything of the sort being done, and one does not see that anything would have been gained by trephining in a case of that kind, although it would have got the credit. (Hear, hear.)

Dr. RAYNER—I, like others, have been much interested by Dr. Fox's paper, and that particular point of the patient's apparent recovery, or actual recovery, is especially interesting to all of us. And I suppose that we have all seen such cases. One of the most striking cases in my own experience was that of a man with well-marked symptoms of general paralysis, which went on for nearly two years, and he very nearly died from general convulsions. Indeed, I thought he would have died within a few days, but, however, after a time he steadily

improved, and got quite well as far as I could see, though I kept him for a long time in the asylum, because there were reasons why I should not discharge him prematurely. He remained three years, and then he went abroad to entirely new conditions of life, and when I heard of him two years ago he was doing perfectly well in his new condition. Whether he has broken down or not since I do not know, but that was about the most striking recovery I have seen. I remember the case of a medical man with marked symptoms of paralysis. He had taken alcohol and all sorts of drugs, and he had very well marked symptoms of general paralysis, but gradually they passed away, and he was discharged. I saw him two or three years afterwards, still following his occupation as a dispenser. The traumatic cases interested me, because I remember especially two of general paralysis developing after blows on the head. One was a man in the dockyards, with a blow on the head, and another was a butler, who fell downstairs and knocked his head. Both of these immediately developed general paralysis. It seemed to me that in both the blow was merely the exciting cause of a predisposition which already existed. At first I did not think that that was the case, but when I came thoroughly to get at the histories of the actual lives of the men, I found there really was sufficient predisposition. But then one has seen other cases of general paralysis following injuries generally more severe than those I have quoted, in which general paralysis had developed. One case I remember specially in which a man had well-marked symptoms. They passed away after some time, but he never recovered. I believe he remains insane to this day, but with no symptoms of paralysis. With regard to treatment, we know it has been said that if we contrived to give general paralytics compound fractures of both legs in the early stages they would probably get well. (Laughter.) Of course, one cannot adopt that treatment, but acting on this idea, and thinking one might get some good by imitating it, I have tried extensive blistering of the legs, thighs, and sides, and I must say that the effects of the treatment were not satisfactory. (Hear, hear). Indeed, the cases were decidedly worse. (Hear.)

Dr. WHITE—I have at the present time a case of general paralysis with three carbuncles, and that man is improving. He has been with me for three years; two years ago he improved, and went out to work. He developed these carbuncles, and I expected him to die, but he is now getting better. I had a case that finally terminated in Bethlem, and will be known probably to Dr. Savage, and also Dr. Smith—Mr. H—. He was the son of a well-known artist. He came from Broadstairs, and I diagnosed that he was a general paralytic at the very early stage, and I made a report that I thought he would die in three or four years, to his brother-in-law. At first he could talk perfectly rationally on most subjects, but he certainly was emotional, and once or twice broke down in tears. Then he was very threatening to his brother-in-law, and they packed him off to us, and we kept him. He got quite rational, and was discharged. Then he gave a tremendous amount of trouble in London. He was guilty of all sorts of habits of immorality, and he had finally to be sent to Bethlem, where he died some two or three years ago. Undoubtedly he had been going downhill for some time before he came to us, and yet he got quite well and was discharged. But he broke down again.

Dr. SAVAGE—To continue that case, I may say that it was certainly one of the most difficult cases I have had to deal with. He insisted upon having visits from the Commissioners, and he got them. They were very much inclined to discharge him, but I quite agreed with the opinion of Dr. White, and I said, "If you discharge him you discharge a general paralytic." His friends came to see him, and they threatened proceedings against me, and I had a good deal of abuse from others who were not personally interested in him. At our entertainments he generally took a particularly paralytic position, and everybody asked who that handsome man was. (Laughter.) There is one case I remember in which a man had passed through all the early stages into the stage with epileptic fits, and he was so bad that his friends were sitting up to await his



death. There were three or four bags of pus about his body, and it was just a question whether to let him die as he was or to evacuate these abscesses. I decided to evacuate them, and then he improved, and instead of dying passed into a quiet, weak-minded condition—well, not so very weak-minded—and he has remained in that condition since 1884, and two or three times lately he has challenged me to play lawn tennis with him.

The PRESIDENT—This very interesting paper is full of subjects for discussion had there been time for it. I am inclined to think that in the traumatic cases mentioned the disease really existed previously, and the blow merely developed it. With regard to the apparent recovery from general paralysis, I think that many alcoholic cases wonderfully resemble general paralysis, and I suspect that some of those recoveries are in cases of alcoholic origin. General paralysis may develop in the course of another insanity. That is a statement which may probably be received with a good deal of doubt; but I believe I have seen that. It would be interesting to know what the experience of the meeting is, but it is too late now to enter on the question. Some one mentioned *trephining* in general paralysis. I am disposed to think it one of the most unjustifiable developments of brain surgery that we have yet heard of. (Hear, hear.) We all thank you, Dr. Fox, for your very suggestive paper. Before we separate, let me say that those who have not looked into Brislington House ought certainly to do so. It is a most interesting monument of what was done in the early days of the century, when the treatment of the insane was very different from what it is now. (Applause.) The beautiful grounds and the villas you may take for granted, but in the old house you will look with much interest at the kindly and thoughtful provision which was made for the treatment of the insane in years long gone by. (Applause.)

The meeting then terminated.

Members dined together at the Royal Hotel, Bristol, in the evening, under the presidency of Dr. Yellowlees.

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## THE MEDICO-PSYCHOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

A Quarterly Meeting of this Association was held in the Hall of the Royal College of Physicians, Edinburgh, on 12th March, 1891. Dr. Keiller was called to the chair, in the absence of the President.

The SECRETARY (Dr. Urquhart) read the minutes of the previous meeting, which were approved, and signed by the Chairman.

### ELECTION OF NEW MEMBERS.

The meeting unanimously elected the following as members of the Association:—John Bruce, M.B., C.M.Ed., Asst. Med. Off. Crichton Royal Institution, Dumfries; Herbert W. Greatbatch, M.B., C.M.Ed., Jun. Asst. Med. Off. Montrose Royal Asylum; John G. Havelock, M.B., C.M.Ed., Sen. Asst. Med. Off. Montrose Royal Asylum.

### THE IMPAIRMENT OF THE ARITHMETICAL FACULTY IN INSANITY.

Dr. IRELAND then read a paper on "The Impairment of the Arithmetical Faculty in Insanity" (see Original Articles).

Dr. SHUTTLEWORTH said that, had he known sooner of Dr. Ireland's paper, he would have come better provided with facts and figures which might have had some bearing upon the subject. He had sent home for one of the reports of the Institution of which he was the medical officer (the Royal Albert Asylum), where they had 580 imbecile children; and in an appendix to that report there were statistics which would bear out to some extent the views of Dr. Ireland as to the marked deficiency in arithmetical power of that class of patients



Out of 580, there were only 27 who were able to work sums in the simple rules, and ten of these were able to work sums in the compound rules—he supposed that included compound division. The highest point of mathematical proficiency reached seemed to be the rule of three. At the other end of the scale it was noticeable that of the 580 there were as many as 205 who could not count at all, and 148 who could count but a little; 77 could count only up to thirty; 54 understood the value of unit figures—that was, they could count and show what the meaning of figures was; 69 could work simple addition sums; and 27 worked easy sums in the simple rules. Dr. Ireland had referred casually to some children who were reputed to be imbeciles, but who were said to have phenomenal powers of calculation. He rather agreed with Dr. Ireland that these children were not usually, in the strict sense of the word, idiots—at any rate, not congenital imbeciles. They were children who, during the developmental period, had had certain of their faculties impaired by some fever or something that had caused atrophy in a portion of the brain, leaving the arithmetical powers unimpaired. He had, however, in his Institution a remarkable case of a young man with a history of congenital imbecility, who was able, without much mental effort, to give the day of the week corresponding to the day of the month for several years past and for several years to come. He was puzzled to find out how the young man arrived so speedily at his results, which were invariably correct; and it seemed that there was a certain amount of calculation in the process, but there was more of mechanical memory. This young man had made it a speciality to study the days with which each year began and each month of the year began, for a great many years past; and having excited interest amongst his companions and visitors as to his powers in this way, he had devoted a good deal of attention to the matter. And these fixed dates—the days on which the years began, and possibly the days on which the months began—seemed to be fixed points in his mind, which he had no trouble in recollecting, and it was easy for him to calculate from them forwards and backwards. His ready answers were certainly very surprising to a stranger. He had met one other similar case in an American Institution. It was remarkable in that youth, when he was asked the dates for years back, within his own memory—for nine or ten years—that he gave the answer correctly. When he was asked to give a date a year forward he replied, “No; I cannot see so far ahead.” In his case it was more an effort of memory than an effort of calculation. With regard to training the power of calculation in imbeciles, the great difficulty was their very imperfect powers of abstraction, and it was necessary to use concrete forms, such as beads, balls, etc., for demonstration. In his Institution they had cubical rods, divided into smaller sections, like wooden bricks. The smallest was one inch long, and they increased in size from one inch up to ten. Pupils were taught to arrange these in their order of size, so that there was a series of gradations, counting one to ten, from the smallest brick up to the largest one. In that way they got an idea of the relation of numbers to dimensions. After getting them to understand elementary notions of figures, they found a very convenient plan to give them practical ideas as to the value of money, weights, etc., was the “shop lessons,” which they had in most institutions. There was a cabinet in which were displayed canisters of tea, coffee, and sugar, etc.; and for the girls, tape, ribbons, and other articles. One pupil was made shopkeeper, the others being sent in succession to make purchases. The articles were weighed and measured, and then came the problem of paying for them. The calculation was made under the supervision of the teacher of the class, and the purchases were paid for in actual coins. Problems of change of money were also gone through. By such means one got a number of the imbecile children to have a pretty good idea of the value of small sums of money. Dr. Ireland had mentioned that it was remarkable that, whereas the faculty of number was so much impaired in idiots, the faculty of music was prominent. He had remarked that himself, but as regards any idea of the theory of music they would find that that was entirely absent and not under-

stood in the least degree by the imbecile class. It seemed to him, indeed, that the humming of tunes by idiots amounted to little more than a pleasant titillation of the auditory sense, and might be compared to the to and fro rocking movements of the body, or the passing of the fingers backwards and forwards before the eyes, producing alternations of light and shade, so commonly noticed with low grade cases.

Dr. CLOUSTON said he was sure they were much indebted to Dr. Ireland for his paper, which was learned, interesting, exceedingly instructive, and suggestive. It was a subject to which he himself had paid almost no attention. The arithmetical power and faculty was absolutely innate in the brain, and they knew that a person who had not begun with being fond of numbers and fond of calculating could not be made a good and ready calculator. It was absolutely innate in such cases as Zerah Colburn. He was not aware that there were any figures that showed the exact heredity of the arithmetical faculty. It did run in families in some cases. In many cases the power was automatic. He was somewhat surprised in seeing the results amongst his own patients to which Dr. Ireland had referred. He had not been prepared to see a complete dement sum up large columns of figures, as Dr. Ireland had showed some such cases could do. For those who had to go into the witness-box and be examined as to the medico-legal condition of patients, especially when the question was as to imbecility, and also in dementia and mania, it was a test—that of calculation—that ought always to be applied in every case. Quite lately he had been asked to examine a woman whether she was able to manage her affairs; in fact, whether a *curator bonis* should be appointed. It was alleged on the one side that advantage was being taken of her. She was a person who looked fairly intelligent. In her dress and ordinary conduct she was quite normal, and also in her expression of face. Beyond the fact that she was simple looking, they could not see much wrong with her. It so happened that she derived her income from the interest of a capital sum of money, and part of her income was derived from the rent of a house, on which there was a bond. On examining the lady he stumbled on the fact that she had absolutely no conception of what interest was, and she could not be made to understand what it meant. She was inclined to be very honest, to be ultra-philanthropic in her ideas, and she objected very strongly to the idea of taking interest for money. Then he said to her, "How do you live? Do you not get so many pounds a year from So-and-so, who has your money in his hands?" She replied that she did not know. She thought that taking interest for money was a device of Satan, and she could not be persuaded that the money she was yearly receiving was such interest. The most he could get her to admit was that one sovereign for a hundred in the year must be enough, and beyond that it would be swindling and very wrong. Yet she was receiving four or five per cent. interest. He had made that the chief point of his diagnosis, and pointed out that she was thus at the mercy of anybody who would take advantage of her. Talking of heredity in regard to the arithmetical faculty, while dining in the hall of the Royal College of Physicians on one occasion, he happened to be sitting next a gentleman very well known in the engineering world, the son and grandson of engineers. During dinner that gentleman said that he was next to devoid of the faculty of calculating. He was a first-rate witness before Committees of both Houses of Parliament in regard to engineering subjects, and had devised important engineering projects. He could not himself carry through the minute calculations necessary for these works.

The CHAIRMAN said that he himself was of the same stamp as the gentleman to whom Dr. Clouston had referred as being defective in regard to the arithmetical faculty. He felt that it was a defect, and knew many other people in the same position. There are those of weak judgment who when called upon may exhibit even a wonderful facility in dealing with and correctly calculating figures. This common-enough "Medico-legal test" of determining doubtful intelligence ought to be carefully applied.

Dr. CLARK said he had met cases in which the arithmetical faculty was hereditary. The difficulty was to find out whether it was a case of a rule or exception. Dr. Clouston had said that he was not aware of any data, but he thought that if the subject were investigated it would be found to descend from one generation to another. The spelling faculty had also interested him. Some children learned it more easily from seeing, and others from hearing. There was a visual and an auditory perception and memory in children as in adults, and some could learn better the one way and some the other. This was a question which might be investigated with great advantage to them as psychologists.

Dr. BATTY TUKE, junr., said that in insanity the musical faculty was often the last one to go. He had two lady patients who, though quite incoherent in speech, played with great accuracy on the piano, the one by ear, the other by reading music, although the latter was quite unable to read a book, and had not dressed herself for twenty years.

Dr. IRELAND said that he had no facts which would enable him to decide whether arithmetical ability was hereditary or not. The only instance which occurred to him was that of the celebrated calculator, George Bidder, whose son was also an excellent arithmetician as well as an engineer. He also thought that the arithmetical faculty was well sustained in the family of the Gregorys, who were professors for several generations. Dr. Ireland observed that Galton had stated that some people conceived of numbers as figures in space as if written on a board in a certain series. Dr. Ireland showed to the meeting a form drawn up by a lady at his request to illustrate the mode in which figures were presented to her mind. It appeared that about five per cent. of the people examined had some such form in their heads. The question in what degree the arithmetical faculty was affected in dementia was far from being settled by the few cases which he had himself examined, but the inquiry might be readily taken up by those who had a large number of such patients at their disposal, and it is likely that curious results might be brought out. What had led him to begin the investigation was the idea that since the arithmetical faculty was the weakest in imbeciles it should be the first to go in dementia. This, however, did not seem to be the case.

The SECRETARY drew the attention of the meeting to the Pathological Index lately published by Dr. Howden, and craved a hearing for Dr. Greatbatch, as Dr. Howden could not be present that day. It would be in the memory of the members that the question of formulating pathological tables was referred to a Committee. That Committee held one meeting at York, which, as yet, remained fruitless. In the interval Dr. Howden had published his scheme in the "Glasgow Medical Journal," and it was now laid on the table for the information of the Association. It was, no doubt, of great importance that this question should be pushed to a conclusion. Take such a branch of this subject as brain weights. It is clearly desirable that the Association should formulate a scheme which could be adopted by all, and place aggregate numbers at the disposal of those making a study of such facts. Dr. C. M. Campbell had given much time to this question, but opposed Dr. Howden's scheme, inasmuch as it took no note of clinical symptoms. He concluded that Dr. Howden's index would be the ground work of any report of the Pathological Committee, and rejoiced that he had again awakened the question.

Dr. GREATBATCH then proceeded to give a description of Dr. Howden's Pathological Index. He said that the post-mortem examinations were recorded in the usual manner, and they were afterwards analysed, the lesions being entered in this index referring to the page in the record where they were described. The index, therefore, was simply an analysis of the pathological record from the reports made in the post-mortem room, and had no relation to the clinical records. The index had been kept for nearly thirty years. It was divided into sections relating to different parts of the body. Each of the tissues were separate, and underneath each heading were the different lesions to which those tissues were subject. Dr. Howden proposed to prepare a book, having the



headings printed, with spaces provided for entering the pages in the record where each lesion was described.

Dr. CLARK asked if Dr. Howden wished to have the matter carried out by the Association.

Dr. GREATBATCH said that Dr. Howden's idea was that the index would be applicable to infirmaries and general hospitals as well as to asylums.

Dr. CLOUSTON said that they had to thank Dr. Howden for sending his index to the meeting. He was sure of this, that the Association was very glad to see one of its oldest members, Dr. Howden, who made the very best pathological records when he was an assistant at the Royal Edinburgh Asylum, now showing an index in the kingdom such as nobody else could produce. He thought it was a most impressive thing to look through that index embodying the result of thirty years' work. It filled one with envy and despair.

Dr. JOHNSTONE moved, "That the Secretary be instructed to request the Pathological Committee to consider Dr. Howden's scheme, and to embody their opinion of it in their report to the Association," which report he trusted would be furnished at an early date. The Committee had now been in existence for over two years, and the Association were still in ignorance as to the result of their deliberations.

Dr. CLOUSTON seconded the motion. Dr. Howden's index would give them some data on which to prepare a report, and they could then give their opinion as an Association.

The motion was unanimously adopted.

#### DEVELOPMENTAL GENERAL PARALYSIS.

Dr. CLOUSTON then proceeded to describe "Two Cases of Developmental General Paralysis." He said they all knew that general paralysis was a disease of retrogression, and occurred most frequently between the ages of 35 and 45. There had been a few cases published of this disease which had occurred at very early ages—a few sporadic cases. There was one published by Dr. Turnbull, and he had himself also published one in which the disease had begun about the age of 12 or 13. A few cases had been published as occurring at early ages in France and Germany. So far as he knew general paralysis had not been considered in any case as a developmental disease or in connection with puberty. Lately, when he was investigating the developmental diseases, there were in the Royal Asylum, at Morningside, two very remarkable cases. One of them was that of A. K., 19 years of age on admission, and had been four or five years ill. She had been a smart and genial girl, and worked as a book-folder up to the age of 14, and had passed the fourth standard at school. No signs of puberty had occurred. Her father was undoubtedly syphilitic. She herself had syphilitic teeth, and a certain kind of choroiditis, which almost invariably indicated hereditary syphilis. The mother was a smart, intelligent woman, who had one miscarriage before and two after the birth of the patient, and another sister was deaf, dumb, hydrocephalic and epileptic. She had several convulsive fits when she was six years of age, but otherwise she had been free from neurosis or any other disease. About the age of 15 she began gradually to become stupid. In consequence of this stupidity and carelessness and inattention she became unable to follow her occupation. She made mistakes, and could not be trusted to go about the streets. It was a gradual enfeeblement of memory, judgment, volition all along the line. Along with this paralytic speech symptoms appeared. She was sent more than once to the Royal Infirmary, and she was very carefully examined, and there was a kind of provisional diagnosis made of cerebral spinal sclerosis. Another physician thought he had seen a case of locomotor ataxy very like it. On admission to the asylum she was stupid and had an idiotic expression, and she was with difficulty made to speak. She made incoherent remarks in answer to questions, and answered slowly and listlessly. She was quite uninterested in anything that took place around her. Her memory was very much impaired. Her appearance was that of a young woman



before the age of puberty. The mammæ were not developed. Her nervous symptoms presented very great interest. There was more than ataxy in her walk. When she laughed the characteristic trembling of the muscles about the mouth of general paralysis was apparent. The tongue was exceedingly tremulous. She hesitated in her speech; began a sentence and did not finish it. In fact it was exactly like a typical case of general paralysis. As is usual in the second stage of general paralysis there was a sort of wiping out of the expression of her face. She could not equilibrate well, and could not turn round without walking into her dress. The pupils were unequal, very much dilated, and very sluggish. There was disseminated choroditis, which, as Dr. Argyll Robertson said, almost invariably arose from syphilis. When put down on the floor she could not rise. The muscles were flabby and soft. He was in the habit of showing this patient to many physicians, but no one would venture to make a definite diagnosis, and he suspended his own diagnosis for a time at first. He asked himself—Was this not a case of diffused syphilitic inflammation with degeneration of the cortex, but non-general paralytic? She was admitted on the 11th July, 1890, and she gradually and steadily became worse and died on the 12th January, 1891. After her death Dr. Middlemas made a very careful examination, and he found that the skull-cap was adherent, that there was some convolitional atrophy, that the membranes were thickened, that the adhesions were chiefly on the lower surfaces of the frontal lobes, also on the vertex to some extent, the two hemispheres being adherent. The convolutions were well marked and numerous. The grey matter was not congested. After giving some further details of the post-mortem examination, Dr. Clouston exhibited portions of the brain under the microscope, and pointed out that the characteristic lesions in general paralysis were found. He then went on to say that at the same time that they had A. K. in the asylum they had also another patient, J. F. This girl was 16½ years of age, and had been lively and playful up to the age of 14. J. F. had never menstruated. The family consisted of eight, of whom the one older than the patient and the three next younger were stillborn. There had been syphilis on the father's part. She had been a particularly bright and clever girl at school, having passed the sixth standard. She was nearly two years in a compositor's place, and did her work well until about ten months before her admission to the asylum. She then became forgetful and stupid. In her case there was a short period of elevation, during which she thought she had money, but without maniacal excitement. On admission she presented all the symptoms of general paralysis. Her walk was not ataxic, but it was a general dragging walk. Dr. Clouston then exhibited the patient to the meeting, and demonstrated the characteristics of the case. He then went on to sum up the facts connected with these two cases. In these cases they had diseases developed in which there were mental and motor symptoms occurring before puberty in the undeveloped stage. Both of them had hereditary syphilis. His theory was that in these two cases general paralysis was developed at puberty and before menstruation, with hereditary syphilis as the predisposing cause and the putting forth of the nervous energy for full reproducing development as the exciting cause. The novelty of those cases seemed to be that this disease, which in 999 cases out of 1,000 was a disease of retrogression, might happen when puberty should occur under the conditions of hereditary syphilis and of heredity towards neurosis, and might run on all-fours with the other developmental diseases that so much abounded at this period of life.

Dr. B. Tuke, junr., said that he had heard general paralysis described as an inflammatory and as a degenerative disease, but if a third viz., developmental, was added, what became of the pathology? the three conditions being obviously quite incompatible. He could not see anything in these cases at all distinctive of general paralysis, but looked on them as being purely syphilitic. Both syphilis and alcohol produced symptoms closely simulating general paralysis. Dr. Clouston seemed to look upon general paralysis not as a distinct disease, but merely as a congeries of symptoms.

Dr. CLOUSTON said that he believed in the degenerative theory of general paralysis and not the inflammatory, and in the absolute unity of the disease. If they had all the symptoms of general paralysis and death as in the case of A. K., what was wanting to make a case of general paralysis? And what other disease could have the same symptoms with the same pathology? He affirmed that no known type of brain syphilis explained these cases, and that having most carefully watched and studied them, he had no doubt whatever they were cases of general paralysis. The microscopic appearances in brain syphilis were entirely different from A. K.'s case.

Dr. B. TUKE said that they could get similar symptoms in alcoholism and syphilitic cases.

The SECRETARY said that the impression left on his mind was that these cases more resembled syphilitic diseases than general paralysis. The heredity pointed that way. Then there was the great confusion of the symptoms—the symptoms not going in regular progression, but alternating. There was another point, and that was in regard to the motor symptoms being as it were deferred. He had reported to this Association some four or five years ago two cases of syphilitic insanity which precisely resembled general paralysis. These were cases of primary syphilis, and the patients were alive yet. The remission had now endured for so many years that he would be perfectly justified in claiming these two cases as syphilitic, and not as general paralytic.

Dr. JOHNSTONE said that they had not seen the first case, and were accordingly unable to confirm Dr. Clouston's diagnosis, but the case exhibited did not strike him as being distinctly one of general paralysis. He quite admitted that female general paralytics presented very vague symptoms, but his experience of such cases led him to be very cautious in diagnosing general paralysis.

Dr. SHUTTLEWORTH had amongst his imbecile patients cases resembling those described by Dr. Clouston, and had been in the habit of regarding them as cases of syphilitic dementia, there being invariably either history or evidence of inherited syphilis. A break down, both mental and physical, took place about the period of the second dentition, previous to this the children having usually passed through three or four standards at school. The first onset was often attributed to a "fit," followed by muscular inco-ordination. The gait, tremor, etc., certainly resembled the features of general paralysis. Three or four such cases had been received into the Royal Albert Asylum, though utterly hopeless as regards training. Progressive degeneration had ensued with, more or less, frequent convulsive seizures, and in the cases that had died thickened meninges and vessels, with atrophied convolutions, had been observed.

Dr. IRELAND said that he could not recall any cases in which congenital syphilis had been assigned as the predisposing cause of general paralysis. In this respect Dr. Clouston had a just claim to originality. He did not clearly make out what was the conception in Dr. Clouston's mind as to the exciting cause. Apparently he attributed the insanity to the strain of the developmental process at the period of puberty. Dr. Ireland thought that the girl's constitution had been struggling with syphilis, and that at last the affection had invaded the nervous system and induced a morbid process, resulting in dementia. He had observed girls who for years showed a tendency to scrofula, and about the age of 14 the cachexy got the upper hand of the healthy processes of nutrition, and there was scrofulous disease of the bones or joints, or strumous ulcers, or tubercle appeared in the lungs.

The SECRETARY proposed a vote of thanks to Dr. Keiller for his conduct in the chair. He said they also would be right to let Dr. Keiller understand how very much obliged they were as an Association for having had the hospitality of the Royal College of Physicians extended to them for their meetings. (Applause.)

Dr. KEILLER briefly acknowledged the compliment.

The members dined at the Edinburgh Hotel in accordance with custom.

*Obituary.*

HENRY MONRO, M.D., F.R.C.P.

The prevailing epidemic has numbered amongst its victims one of the oldest members, and a former president of our Association. Dr. Henry Monro died at his house in Upper Wimpole street, on May 18th, 1891, aged 74, after a brief illness. He was the last of a long line of physicians, who from father to son followed the same specialty, four being in direct succession physicians to Bethlem Hospital. The first of them was the son of Alexander Monro, D.D., the principal of the University of Edinburgh, who shortly before 1688 was nominated by James II., Bishop of Argyle. The revolution, however, prevented his assuming the dignity, and in consequence he came to London in 1691, and sent his son James to Balliol College, Oxford. The latter graduated M.D. in 1722, and in 1728 was elected physician to Bethlem Hospital, then standing in Moorfields. His son John, after having been educated at Merchant Taylors' School, also proceeded to Oxford, where he had a distinguished career, becoming a Fellow of St. John's College and a Radcliffe Travelling Fellow. He studied medicine in various places, first at Edinburgh, then at Leyden, and also in Paris and Germany. Returning to England he was appointed joint physician with his father to Bethlem Hospital, and in 1752 sole physician. Dr. John Monro "possessed a correct and elegant taste for the fine arts, and his collection of books and engravings was very considerable. He was deeply versed in the early history of engraving, and the specimens he had collected of the works of the earlier engravers were select and curious" (Dr. Munk, *Roll ii.*, 183). His eldest son died at Oxford, and a younger, Thomas, proceeded to Oriel College, graduated in medicine and became assistant physician to his father at Bethlem Hospital, and physician in 1792 on the death of the latter. Dr. Thomas Monro was also devoted to the fine arts, and is well known as the friend and patron of the celebrated Turner, who was a constant visitor at his house. The fourth physician of Bethlem Hospital in this series was Edward Thomas, the son of the last, who like him graduated at Oriel College, and was elected physician to the hospital in 1816. The subject of this notice, Henry Monro, was the second son of the last mentioned. Born in 1817, he was educated at Harrow, and like his father and grandfather graduated at Oriel. He studied medicine at St. Bartholomew's Hospital, and became a Fellow of the College of Physicians in 1848. All these five physicians were Fellows of the College, and the portraits of all five are to be seen there, presented by Henry Monro, while those of his father and himself were painted by him. As visiting physicians at Bethlem Hospital had been discontinued, he became in 1855 physician to St. Luke's Hospital, an office he held till 1882, when he was elected consulting physician. Though the fifth of his family as a psychologist, he was the first who contributed by his pen to the literature of this special subject. In 1850 he published a treatise on Stammering, an affection from which he suffered through life to a small extent. He believed that stammering "is a chronic chorea of the speech muscles arising from a morbid irritability of nervous fibre, resulting in a loss of equilibrium between the mental and motor nervous forces, in which (whether stammering assume the more mental or more physical type) in every case the physical motor power is unequal to the pressure of the mental force and is driven consequently into spasmodic action when pressed upon by the will." In the following year he published "Remarks on Insanity," in which he still further develops the same idea, and applies it to insanity, which he says "is an affection consequent on depressed vitality . . . that when the cerebral masses are suffering from this condition of depressed vitality, they lose that static equilibrium of the nervous energies which we call tone, and exhibit in their functions the two different degrees of deficient nervous action, coincidently, namely, irritable excess of action and partial paralysis . . . that these two degrees of deficient nervous energy do not fall



alike upon all the seats of mental operations, but that there is a partial suspension of action of the higher faculties, such as reason and will, while there is an irritable excess of action of the seats of the more elementary faculties, such as the conception of ideas, etc., which is exhibited either by excessive rapidity of succession of ideas or undue impressions of single ideas." Dr. D. H. Tuke, in his presidential address (1881), has pointed out that this doctrine of Dr. Monro's is a still clearer statement of the theory that insanity is caused by the depression or paralysis of the higher nervous centres and excessive action of others, a doctrine which Dr. Hughlings Jackson has adopted and extended, applying to it the hypothesis of evolution and dissolution as enunciated by Herbert Spencer. Insanity, according to this view, is dissolution beginning at the highest cerebral centres, the dissolution being either uniform or partial, and also varying in "depth," and Dr. Tuke further remarks in his work on "Sleep-Walking and Hypnotism" that the doctrine of positive and negative states of Dr. Monro is even more applicable to the changes involved in dreaming and sleep-walking, these being a physiological liberation of energy of one portion or centre of the brain, and a persisting stability of another part which, freed from control, may come into active play (p. 7). The whole of this treatise by Dr. Monro is characterized by thoughtful observation, as is an article published by him in the second volume of our Journal on the Nomenclature of the various forms of insanity. Among other topics he gives a good account of so-called "acute dementia," to which other names have been assigned by different writers. He proposed the name of cataleptoid insanity, "the symptoms bearing a striking resemblance in some points of view to catalepsy."

Dr. Monro was a regular attendant at the meetings of the Fellows at the College of Physicians, where in 1861 he had filled the office of Censor, and in other years that of Councillor. He was greatly interested also in the various Lunacy Bills which were for so many years before the legislature, and a diligent attendant at committees thereon. His genial and kindly nature brought him many friends in both Houses, and their advice was of much assistance at this period. But beyond professional interests he had a great and never failing delight in art, which he inherited from his grandfather and great-grandfather, and he was rarely absent from Christie's when an important sale of pictures was taking place. His taste and judgment here were excellent, and he was no mean artist himself, as the portraits executed by him at the College sufficiently testify. Though latterly he had somewhat failed in strength, yet a few years ago he looked singularly youthful for his age, and no one would have supposed that he had seen seventy years. Among his sons he leaves none, we regret to say, in the profession to carry on the line of psychological physicians.

G. F. BLANDFORD.

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### H. G. SUTTON, M.D.

We have to record the death of a very old member of our Association, one ill spared from general and special medicine; we refer to Dr. H. G. Sutton, physician to the London Hospital. He, with Dr. Hughlings Jackson, more than 25 years ago began to distinguish himself as a pathologist.

He did very excellent work in showing how few of the so-called local diseases were really local, they were but local manifestations of general pathological states. He pointed out that in such a disease as Bright's not only was the kidney tissue affected, but that there were widespread changes involving the nervous tissues as well. Dr. Sutton was a man of the widest sympathies, and always had a strong liking for affections of the mind and their rational treatment. He was not only a physician but a refined man, who believed in the value of outside culture for the hard-working physician, he himself spending much of his leisure in the study and practice of music and of art. Deeply



sympathetic, a devout man without any sectarian narrowness, he worshipped more often in the temple of nature than in that of churches. He longed for the rest which he has now found.

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RICHARD GUNDRY, M.D., MEDICAL SUPERINTENDENT OF THE  
SPRING GROVE ASYLUM, MARYLAND, U.S.A.

Dr. Gundry was born in 1830, at Hampstead Heath. When thirteen years of age he accompanied his father, the Rev. Jonathan Gundry, who was a Unitarian Minister, to Canada, and commenced the study of medicine at Simcoe, Ontario. He ultimately graduated at the Harvard Medical School, where he carried off the first prize. After a tour through Europe he commenced practice in Columbus, Ohio, and was then appointed second assistant physician in the Columbus Hospital for the Insane. He also held the post of Professor of Materia Medica and Mental Diseases in the Starling Medical College, Columbus. In 1858 he was transferred to the Ohio Insane Asylum at Dayton, and in 1861 he was promoted to the superintendency. This post he held until 1872, when he was chosen to complete and organize the asylum at Athens, Ohio. This institution was opened in 1874, and he continued in office there until 1877, when he returned to the asylum at Columbus. "Political manipulations," says a contemporary, "caused a severance of his connection with this institution," and in June, 1878, he commenced his work at Spring Grove, where he continued until his death, which occurred in April last, in the 61st year of his age. He leaves eight children. Two are members of the medical profession; one—Miss Mattie Gundry—is matron of the Home for Feeble-Minded, Baltimore.

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MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT  
BRITAIN AND IRELAND.

THE ANNUAL MEETING.

The Fiftieth ANNUAL MEETING of the Association will be held on Thursday, July 23rd, 1891, at the City Asylum, Birmingham, under the Presidency of EDMUND BANKS WHITCOMBE, M.R.C.S.

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COUNCIL MEET at 10 a.m.

GENERAL MEETING at 11 a.m.

AFTERNOON MEETING (PRESIDENT'S ADDRESS) at 2 p.m.

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As this will be the JUBILEE Meeting it is hoped there will be a large attendance of members. The Dinner will probably take place at the Great Western Hotel.

Trains run from Snow Hill Station to Soho (G.W.R.), which is a few minutes' walk from the Asylum. Dr. Whitcombe will arrange for some conveyances to bring Members to the Asylum from the Great Western Hotel at the hours of meeting of Care and Treatment Committee, the Council, and the Morning and Afternoon Meetings.

FLETCHER BEACH,

*Hon. Secretary.*

Darenth Asylum, Dartford,  
June 15th, 1891.

## ASSOCIATION EXAMINATIONS.

## CERTIFICATE OF EFFICIENCY IN PSYCHOLOGICAL MEDICINE.

## BETHLEM HOSPITAL.

*Examiners :*

DR. RAYNER and DR. WHITCOMBE.

I.—PASS EXAMINATION, JULY 16, 11 A.M.

II.—HONOURS EXAMINATION (GASKELL PRIZE), JULY 17, 11 A.M.

*Scotch Examinations.*

ROYAL EDINBURGH ASYLUM, MORNINGSIDE,

JULY 14.

ROYAL ASYLUM, GARTNAVEL, GLASGOW,

JULY 16.

ROYAL ASYLUM, ABERDEEN,

JULY 25.

For particulars, apply to Dr. FLETCHER BEACH and Dr. URQUHART.

LIST OF CANDIDATES WHO PASSED THE EXAMINATION FOR THE  
CERTIFICATE OF PROFICIENCY IN NURSING IN MAY, 1891.

## BIRMINGHAM ASYLUM.

*Males.*William Butterworth,  
Thomas Connor,  
John Andrew Parkes,  
George Lees,  
George Richard Evans.*Females.*Sarah Ann Devlin,  
Mary Ann Kings,  
Kate Millward Coaling,  
Edith M. Bearpark,  
Mabel Moore,  
Frances Parkes,  
Ann Philipps,  
Mary Jane Moore.

## RUBERY HILL ASYLUM.

Charles Henry Henson,  
Charles M. Clarke.Laura Mary Potter,  
Sarah Fisher,  
Clara Helen Swift,  
Elizabeth Annetta Gittins.

## JAMES MURRAY'S ROYAL ASYLUM, PERTH.

James Smith,  
Robert Knight,  
William Douglas Pennycook.Isabella Scott,  
Alice Mary Jamieson.

## KIRKLANDS ASYLUM, BOTHWELL.

Duncan Haggart.

Catherine Smith,  
Jessie Jamieson.

## STIRLING DISTRICT ASYLUM, LARBERT.

Donald Macrae,  
James A. G. Mowatt,  
George Gladstone,  
William Robbie.Jeanie McLeod,  
Mary A. Mason,  
Maggie M. Stuart,  
Jane Ross.

*Appointments.*

CORNER, HARRY, M.B., L.R.C.P.Lond., M.R.C.S.Eng., Second Assistant Medical Officer at the Bethlem Royal Hospital.

CRAIG, FREDERICK A., M.B., Junior Assistant Medical Officer to the Kent County Asylum, Chartham, near Canterbury.

DISTIN, HOWARD, M.R.C.S., L.R.C.P., Resident Clinical Assistant at Bethlem Hospital.

EUSTACE, JOHN, M.B., C.M.Dub., Clinical Assistant to the Royal Asylum, Edinburgh.

EVANS, WILLIAM GEORGE, F.R.C.S.Eng., L.R.C.P.Lond., Clinical Assistant to the City of London Lunatic Asylum, Stone, near Dartford.

EVERETT, WM., M.B., Senior Assistant Medical Officer to the Kent County Asylum, Chartham, near Canterbury.

GILL, JAMES MACDONALD, M.B.Lond., Resident Clinical Assistant to the Bethlem Hospital.

GOLDIE, EDWARD MILLIKEN, M.B., M.Ch.Edin., Assistant Medical Officer to the York Lunatic Asylum.

GRABHAM, MICHAEL, M.A., M.B., B.Sc.Cantab., Resident Clinical Assistant to the Birmingham City Asylum.

HENDERSON, JANE B., L.R.C.P., L.R.C.S.Edin., Third Assistant Medical Officer to the Holloway Sanatorium, Virginia Water.

MORRISON, C. S., L.R.C.P., L.R.C.S.Edin., Assistant Medical Officer to the Hereford County and City Lunatic Asylum.

NORGATE, R. H., M.R.C.S., L.R.C.P.Lond., Third Assistant Medical Officer to the Worcester County and City Lunatic Asylum.

NUTHALL, ROBERT L. S., M.R.C.S., L.R.C.P.Lond., Fifth Assistant Medical Officer to the Hanwell Asylum.

ROBERTSON, T. BEGG, M.B., C.M.Edin., Assistant Medical Officer to the Fife and Kinross District Asylum.

SHAW, ERNEST A., B.A., M.B., C.M.Cantab., Pathologist and Anæsthetist to the West Riding Lunatic Asylum, Wakefield.

SIMPSON, ALEXANDER, M.A., M.B., C.M.Aber., Junior Assistant Medical Officer to the Sussex County Asylum, Haywards Heath.

SMITH, ROBERT G., M.A., B.Sc., M.R.C.S., Assistant Medical Officer to the City of Newcastle Asylum, Gosforth.

WATSON, GEORGE A., M.B., C.M.Edin., Assistant Medical Officer to the Birmingham City Asylum.

WILLIAMS, D. I., M.R.C.S., L.R.C.P.Lond., Junior Assistant Medical Officer to the County Asylum, Shrewsbury.

WILLS, ERNEST, M.B.Lond., M.R.C.S., L.R.C.P., Assistant Medical Officer to the County Asylum, Rainhill, near Liverpool.

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of Great Britain and Ireland).*

EDITED BY

D. HACK TUKE, M.D.,

GEO. H. SAVAGE, M.D.

"Nos vero intellectum longius a rebus non abstrahimus quam ut rerum imagines et  
radii (ut in sensu fit) coire possint."

FRANCIS BACON, *Proleg. Instaurat. Mag.*

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JANUARY, 1892.

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### PART 1.—ORIGINAL ARTICLES.

*The Cerebro-Spinal Axis as a Thermal Centre and Water Power.\** By B. W. RICHARDSON, M.D., F.R.S.

MR. PRESIDENT AND GENTLEMEN,—Whilst I feel very much honoured by the presence here to-day of the members of the Medico-Psychological Association of Great Britain and Ireland to listen to a paper from me on the “Cerebro-Spinal Axis as a Thermal Centre and Water Power,” I am, I confess, not a little anxious respecting the result of my labour. I know I stand before a body of listeners who, from their daily avocation as well as from their accomplished training in mental and physical science, form naturally the most critical audience I could address on the subject to be discussed, and this alone is a cause of grave concern. But there is something more before me. I am about to bring forward an entirely new line of research and observation in so elementary a stage that the simplicity of the thesis itself may, at first sight, seem to imperil its acceptance. I must, therefore, with special emphasis, claim, at the onset, your kindest indulgence.

Profound researches have been made into the anatomy of the cerebro-spinal system, into its microscopical structure, into its chemistry. Endless experiments have been performed in order to discover the functions of its different parts; but I am aware of nothing that has been done towards the study of it as a working mechanism, as a fixed central physical instrument playing its part methodically, according to the physical conditions in which it is placed, apart from the more refined details of function which its delicate and

\* Lecture delivered to the members of the Medico-Psychological Association at a meeting of the Association held at 25, Manchester Square, on Thursday, November 19th, 1891, the President, E. B. Whitcombe, Esq., in the chair.



minute structures adapt it to perform in many and marvellous ways.

*Preliminary Note.*—Before I come to the new work on which I wish particularly to speak to-day, it is necessary to refer to the lines of thought and experiment that have led up to the present labour. Experiment-making is a very slow and suggestive process. One new observation often unexpectedly opens up another. Constantly the route towards a certain end which, at first, looks clear enough, is found to terminate in a *cul de sac*. Very often it is necessary to go back altogether. Occasionally a new and promising path is disclosed, and all ends well. I hope, almost against hope, it is so now.

*Electrical Researches.*—Early in my physiological career I sedulously inquired, by experiment, whether the nervous centres could be charged with electric energy. I tried to construct out of the animal structures a Leyden jar, and to discharge it in regulated directions by conductors. Some curious experiments were arrived at in this inquiry, by which I learned after a certain fashion to charge and discharge from the dead brain. But here came the practical difficulty that to do this some foreign structure had to be introduced into the experiment. I could not find in any structure or tissue of the body an efficient insulating medium.

*Theory of a Nervous Ether.*—In the end, I came to the conclusion that some other more definite principle must be sought after than what is now called electrical energy in the nervous centres, and it then entered into my mind that there might exist in the nervous matter a refined ethereal body, to which I gave the hypothetical name of *nervous ether*. I devoted many months to the study of this subject, and published the description of my views in the "Medical Times and Gazette" for May 6th, 1871. I supposed that the hypothetical gaseous or vaporous ether was a chemical product of low boiling point, diffused through the water of the nervous matter; that at the temperature of the blood it was at considerable tension; that it was easily condensable by cold; that it was soluble in water; that in its gaseous or vaporous state it was a medium by which all vibrations were received and conveyed by the organs of sense from without to the brain; and that the collapse of death was due to the cessation of its production, its condensation and inertia. The field of inquiry in the study of this

hypothesis was one of the most laborious I ever trod, and was only relieved of its weariness by the fascination of the pursuit. I tried the absorbing power of the brain for every light chemical body that was likely to answer the probable requirements of a nervous ether. As a result I obtained some curious and useful facts, but I failed to satisfy myself of the existence in the brain of an ethereal substance that would serve the purposes named.

*Researches with Extreme Cold Generally Applied.*—The next line of research was of a different stamp, more practical, and yet broadly suggestive. I made a practical study, as you know, of the common ethers for the production of local anæsthesia by extreme cold. At first this study was applied to the effects of cold on the outer surfaces of the body, and to the sensitive terminations or peripheries of nerves. Here it succeeded well, and I began to extend the study to central nervous matter with remarkable and unexpected results. By subjecting the cerebral mass to such a degree of cold that it underwent congelation, all the voluntary functions of the body were suspended. Precisely as in hibernation, an animal whose cerebral centres were subjected to cold lay in deep sleep, the respiration, the circulation, proceeding as before, and sustaining the life. If the process of chilling the cerebral substance were rapidly produced the spinal cord was rendered irritable, and unconscious muscular movements were for a time produced; but if the process were conducted while the rest of the body was exposed, at the same time, to moderate cold, so that the break of function between the brain, medulla, and cord was not too abrupt, the torpor was unattended by extra movement of muscles. In the torpor all communications between the external world and the animal were cut off. In plain terms the cerebrum ceased, for the time, to be an absorbing centre. The great centre of the volition, cold and consolidated, would not receive light, would not receive sound, would not respond to pungent vapours. It was in the same dead condition as my own skin frozen at a limited point; it would not receive the impression made through a nerve; it was dead to common sensibility, not to mention pain; it ceased to be able to accept or reflect any vibration whatsoever. The water in its substance was waveless, and for the moment dead.

It was remarkable to observe that, although the resistance to absorption of vibrations was so complete that actual death

could not have intensified it, there was, if the process were skilfully carried out, no death. The vital acts of circulation and respiration were still in progress, and if the nervous structure were allowed to return gradually to the natural consistency the recovery from the dead state was a sure and harmless as well as a painless restoration. In the case of warm-blooded animals, like birds, the artificial hibernation could be maintained for many hours with complete recovery if the temperature were allowed slowly to return to the natural state. In the case of cold-blooded animals, frogs, toads, and fish, the brain and spinal cord could be brought to inertia, and held in that condition for much longer periods. In my Croonian lecture to the Royal Society on "Muscular Irritability after Systemic Death," I showed batrachians enclosed in ice, and exhibited their recovery to perfect life from that extreme condition. In another lecture\* I exhibited some carp that had been accidentally frozen in the Zoological Gardens during a hard frost. They were frozen so completely through that they were practically dead, but I was able to thaw them so gradually and uniformly, that as they relaxed from their rigidity they recommenced to live, and showed, after a short time, no evidence of injury from the temporary death in which they had been held. In these animals the whole of the nervous centres, excepting, perhaps, those immediately connected with the heart, had been brought into inertia by the cold.

*Researches with Cold Locally Applied.*—The above was the effect of extreme cold extended to the whole of the vital nervous matter; but another and equally singular fact was discovered, namely, that the same effect on nervous structure could be localized, so that parts only of the cerebral or spinal centres could be suspended in function, whilst other parts were unaffected. Thus when in birds the corpora striata were made to sleep by cold, the cerebellum being left unaffected, excited volition pushed the body forward, while, if the cerebellum were rendered insensitve, the body was carried backwards usually with a series of somersaults. These events had their analogies in injuries and diseased conditions of brain in man himself, as in the temporary paralysis of the anterior centres of the brain on looking over a precipice; as in a case where a patient suffering from disease of the corpora striata was impelled to rush forward, care-

\* One of a course of lectures on Experimental and Practical Medicine.



less as to any obstacle or danger that might stand in his way ; and as in some conditions of somnambulism, where the impulse to move forward, regardless of consequences, is the dominant impulse ; but I dwell now only on the fact that a portion of the brain structure could, it was found, be artificially brought into hibernation by temporary subjection of the affected part to cold, and that recovery would take place by restoration of the natural tension of fluidity. It was not a little astonishing to find how sharp was the line of demarcation between an affected and an unaffected portion of the cerebral matter. In warm-blooded animals the cerebrum, the cerebellum, and part of the medulla, and parts of the cord could be rendered hibernate, and be kept so without danger to life, if the respiratory centre of the medulla were left free. In cold bloods the whole could be affected without actual destruction of vitality.

*Cold under Freezing Point.*—It was ascertained by further experimental inquiry that, in order to produce very decisive effects, it was not necessary to carry the cold to the extent of actual freezing of the nervous matter. When cold was applied to a vascular part like the skin there were brought to view three stages of action :—(a) a stage of exaltation of action in which the part was injected with blood ; (b) a stage of inertia and insensibility in which the structure was left bloodless, firm, and insensible ; (c) a stage during recovery, the cold being withdrawn, in which there was a return of vascularity with that temporary exaltation called usually reaction. In a modified way the same thing occurred when the cerebrum was subjected to cold. The pia mater was at first injected, but its surface is so delicate, it was soon emptied of its blood, and the cerebral substance underneath it was rendered inactive without any extreme reactive condition. For this reason it was found comparatively easy to induce temporary somnolency and sleep by a process of moderate abstraction of heat. In one experiment I determined that drowsiness ending in sleep began when the temperature of the cerebrum was merely reduced six degrees Fahr., and it was this observation that led me to suggest the original theory that ordinary sleep might be accounted for as due to nothing more than a molecular change of structure in the nervous organization owing to the dissipation of energy from the brain and its subordinate parts during long periods of labour.



*Physical Modification of Parts under Cold.*—In another series of researches on nervous matter conducted in 1867, I found that under cold the passage of electrical currents through it was varied, and that by changing the molecular condition of nervous structure by cold the same interruption to the course of vibration occurs as when the nervous structure is either firmly compressed or actually divided, but with this essential difference, that the cold produced no more than a temporary suspension of function, or sleep, easily recovered from; whilst the mechanical effects of compression or division were apt to terminate in permanent disability.

In these inquiries I was led to see the value of electrical vibration as a test of the working condition of nervous matter. In 1879 I was so fortunate as to become possessed of my friend Professor Hughes' beautiful electric balance as a means of research. Before this I had been much embarrassed by the direct local decomposition which followed the application of the continuous current; but now I had an instrument which measured for me from the secondary coil, and removed this difficulty. I could measure through a scale of two hundred degrees of sound, and establish comparisons from minute variation of conditions of the nervous matter under investigation. I put dead nervous matter, brain or cord, after it had been warmed to its natural temperature in a specially constructed chamber, into the circuit, and noted on the scale the degree of conducting power that was exhibited. I raised the temperature to fever heat, I cooled down to freezing point, testing all the way along at stages of different degrees the conducting power. In the end I obtained results which indicated that the conduction became modified according to variations of temperature, increasing with rise of temperature and decreasing with fall in steady and distinctive degree.

I also brought the structures back from the extreme of cold to natural heat and to fever heat with reverse results, from which I inferred, I think justly, that no molecular injury was done to them, and that they had passed through the same physical change as the nervous matter of frozen animals in whom there is returnable vitality from what appears to be the absolute inertia of death.

*Inferences leading to New Observation.*—From the study of

these phenomena, I was naturally led to think of the cause of them. What parts in the affected nervous structure were modified in character under cold and heat? Here I began to inquire anew.

Giving up, for the time, the theory of the nervous ether, I looked at the construction of the nervous substance from a simple mechanical-physical point of view. In the crude form of it there were the three distinct kinds of matter—water, uncoagulated colloidal albumen, and fat. These parts have their own specific attributes under the influence of heat and cold. The water would not go into solidification under cold until the freezing point was reached, and then suddenly with expansion.\* The fat, however, would pass evenly and by degrees from the fluid into the solid state under cold, and back again by degrees into the fluid state under the influence of heat. The albumen in which the vital endowments would be centred would remain at the normal temperature of the animal body, always fluid, and as free from coagulation as it is in the serum of the blood; it would be diffused through the water of the nervous substance as it is diffused through the serum; and of itself it would not be likely to be affected either by the cold or the heat at blood temperature. At the same time it would play an intermediate part as between the water and the fatty substance; it would cause, as in an emulsion, the fat and the water to unite to form a homogeneous compound. If cold were applied to this compound the inference would be that the whole would undergo gradual cooling, and that the effect of the cooling would be to increase solidification step by step without subjecting the water to congelation. The thought threw new light on construction for function. It suggested to me an explanation of the local action of cold. An expanse or surface of water alone would not show physical change of structure until freezing point was reached, and then a considerable surface would solidify from one point. But what would happen if a surface of a compound fluid of fat, albumen, and water were exposed to cold? The experiment was made, and a comparison was struck. A compound as named was exposed to cold, and was found to solidify long before freezing point was approached. Then brain substance, triturated into solution and freed of mem-

\* To this sudden expansion is due the sharp pricking pain that comes on under ether spray at the moment of freezing a surface of the body.

branous substance, was tested in the same manner. It responded in a similar way. When cooling of the surface of the compound was localized, the solidification was local, a fact which corresponded with what had already been observed in the brain in its vital state.

To sum up. The position to which I was led ran as follows. The nervous substance is physically constructed of three parts: *water, soluble albumen, and fat*. The water, which in a certain manner is solidified, is susceptible of more complete solidification by cold, with the capability of restoration by warmth. The albumen, soluble in the water, and capable, like all similar colloids, of hydration to any degree, moves with the water in respect to solubility. The fat, rendered soluble with the water and albumen, solidifies under cold more readily than water, and becomes fluid by heat more readily, by which means the nervous substance under limited ranges of temperature may vary in tension.

*Theory of Water Power and Tension.*—And now I come to the later development of reasoning from and on research, to which I desire particularly to draw attention. One day it struck me that the action of the refined nervous ether, about which I had worried myself so much, might all be effected by water changing in tension, expanding into vapour under elevation of temperature, by oxidation, and condensing under reduction of temperature. If this were so, then much indeed would be explained. Then we might be led to look upon the brain with its subordinate parts as an independent thermal centre and a water power, acting, however complicate its minute anatomy, as water influenced by the mode of motion called heat.

When the thought was opened there was an immense deal to be said in favour of it. A large part of the nervous matter is water. The degree of physical condensation of water in the closed cavity of the skull is most remarkable. Itself resistant to mechanical compression, it is here, in the simplest way, compressed—compressed into a certain solidity without being frozen, and connected with tubular nerves along which it ought to be able to maintain an extending column of nervous fluid into the remotest parts under the mere impulse of central vibration. If this were so, impulses would be steadily flowing from the brain into the body during times of cerebral and spinal activity, while

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vibrations from the external universe would vibrate back, and unless overwhelming in intensity, would sustain vigorous or subdued action according to temperature, as water in a steam engine in varied tension fashions the motion of the engine.

It was very encouraging to read by the light of this theory so much possible natural fact in support of it. It was as if one ignorant of the action of the watch had suddenly found the mainspring, and had felt oneself able from that instant to understand the movement of the hands and the regulation of their courses. Looking now at the central nervous system as a water power enclosed in resistant bounds, so as to be able to exert action under oxidation and the resultant heat, it lay before me as the mainspring of the animal body to which the blood and circulation play an important but really subordinate part.

I said to myself first, If water vapour be the motor under expansion, it must, after it has served its purpose, be condensed, and this led me to recall an observation which I originally made on the mode of exit of the cerebro-spinal fluid. I had found, as detailed in the first number of the "Asclepiad" in 1884, that the escape of that fluid was at the lower extremity of the spinal cavity into the blood by the inferior vena cava. From this a fact of much importance was discerned. It showed the precaution taken by nature to keep every part of the brain and spinal cord in a water condenser, and the interior of the brain in communion by it with the exterior. The cerebro-spinal fluid is the condensed fluid, and is the regulator of the pressure under the varying moods of oxidation incident to variation of vibration. When the brain and cord are unusually active; when they are receiving vibrations on every side; when, that is to say, the water tension of the centres is at its height, then the amount of condensed cerebro-spinal fluid poured into the veins must be enormous, and may easily and reasonably account for that free action of the kidneys which in hysteria and other kinds of mental excitement is so constantly observed. When, on the other hand, the central tension is reduced, the accumulation of the water in the ventricles and in the arachnoid sac will fill up the void, and by the even pressure it exerts favour quietude and sleep. The part played by the fluid must be, in fact, in the most refined degree regulatory, one of the most beautiful and important

parts of the cerebro-spinal mechanism. It is the dialysed efferent fluid of the nervous centres; it is the condensed fluid of the nervous centres; but, in ebb and flow, according to the tension of those centres, it maintains equality of balance, governing sleep and wakefulness.

This seemed very natural, and made the theory still more clear as a working theory; but I felt that certain other evidences were wanted, if the theory were correct. Two views occurred to me in this direction:—

(1.) I reasoned that if water plays the part supposed, then removal of it from nervous tissue ought to have the same effects in regard to vibration as subjecting it to cold. That is to say, removal of water ought to reduce conduction, while the removal of fat would increase it.

(2.) If the theory be true there must be in the cerebro-spinal axis a steady combustion or oxidation, that stands alone; that is, in a sense, independent; a sovereignty that works the central power by its own mere motion. It also must be a modified as well as a steady combustion, and the products of it must be soluble and dialysable. We ought, therefore, to be able to excite such a combustion in nervous matter, even when it is dead.

In order to test the first of these propositions, I followed the same series of inquiries, in regard to electrical vibration after the mere removal of water, as I did when the nervous matter was condensed by cold. Brain, spinal cord, and sections of nerves were subjected to observation under various degrees of hydration. A portion of the substance to be tested was placed in the electric balance, and its conducting power noted while charged with its water. It was placed at 100° Fabr. in the drying chamber before us to be dried down to complete dryness, and as the process went on the conduction was tested day by day. The conduction was found to decline in proportion as the water disappeared, until, on complete desiccation, conduction ceased altogether. But, by exposure to water vapour, which it readily reabsorbed, it could be made to resume its full conducting power. The fact explains why in some animals exposed to slow evaporation the nervous system may be brought to such inertia that death itself seems absolute; and yet, on immersing the animals in water, they revive and relive. This is the equivalent to hibernation from effects of cold.

I made an inquiry relating to removal of fatty matter. It was seen that, under cold, the presence of fat in nervous

matter modified the action of cold, so that condensation progressed sufficiently to interrupt function before freezing occurred. The fact led me to ask what would be the effect of removing the fat and letting the water remain. The experiment was tested. Portions of nervous matter, brain and cord, grey and white, were taken in the fresh state from the sheep just killed, and conduction was tested. The section was then placed in carbon bisulphide or ether, and left in it until the fatty matter in it was removed. Then, the specimen being removed, the test was re-applied, with the finding that the conducting power had increased, by removal of the fat, 10 degrees.

Hitherto I had made electric vibration the test of activity. I moved to the vibration of sound, and here again the telephone and balance came to my assistance. By putting nervous material between the vibratory drum of the telephone and the ear I was enabled to detect variations under many varying conditions of the nervous material. The results were most important. There is not time to refer to them here in detail, and they are too delicate to be made matter of illustration so that all present could verify them at once; but, briefly, they showed that absorption of sound by the nervous matter was most perfect when the water was in full, but not extreme, tension, that removal of tension lessened absorption, and high tension increased it.

Turning to the second proposition for inquiry—namely, the combustion that is present in the nervous centres—I was helped considerably by an observation I had made in my earlier experiments on heat and cold. I had found several times that, whatever was the nature of the combustion going on in the nervous centres, it was attended, in all animals, even in birds—in whose bodies what would be the highest fever heat in men is the natural condition—with a much lower development of temperature than in other active organs of the body. A difference of 4° Fahr. was observed between the brain and the liver, and 2° between the brain and the arterial blood. Moreover, I had learned in the most singular manner that there is going on in the living brain an actual phosphorescent combustion from oxidation, a combustion that would yield a steady low temperature with soluble products that would easily dialyse and make their way out of the nervous substance both by the blood and by the cerebro-spinal fluid. Whether combustion of carbon takes place in the substance of the brain



or cord, with liberation of the gaseous product carbonic anhydride, remains to be determined; but the oxidation of phosphorus there, with production of dialysable products, cannot be doubted. It was necessary, therefore, to take this moderate oxidation into account, with the surmise that the lower temperature of the brain in its natural state, compared with that of other vascular organs, is from this cause.

I carried out an inquiry on this point by taking the dead brain of the sheep divested of membranes, and rubbing it into a pulp or emulsion. The emulsion was phosphorized by the simple process of mixing with it phosphorus dissolved in carbon bisulphide; the bisulphide was rapidly removed by the air-pump, leaving the phosphorus in the finest state of distribution in the emulsion.\* The phosphorized brain mass was now experimented on in divers ways. A mould of albuminized tissue involuted into convolutions was charged with the brain substance, and floated on richly oxidized blood—derived from the same slaughtered animal—rendered alkaline with soda, at the temperature natural to the blood. The oxidation was sustained for several hours, the blood being often removed and changed for new blood freshly oxidized. Under the warmth the brain stuff was oxidized until a slow combustion was established through the whole structure. The specimen left to condense yielded a fluid analogous to the cerebro-spinal, and on the outer surface of the mass where the blood dipped into the folds of the albuminized tissue the colour of the brain, as shown in specimens submitted, was greyish dark with the central part white.

In these experiments I introduced another line of research. I mixed with the oxidized blood different substances to see if they were changed by exposure to the combustion. Some, like alcohol, were rapidly changed; others, like strychnine, slowly.

I would like to dwell on these experiments and on others similar, but my time is nearly exhausted, and I have yet to glance at the bearings of the theory advanced on some of those diseases with which you are most familiar. As preparatory to such application let me, in a brief summary, place the argument under a few distinct heads.

*The Argument.*—(1) The cerebro-spinal axis is a static thermal centre and a water power—the mainspring of all vital

\* An experiment was shown at this point in which phosphorus distributed finely on paper oxidized, and went, spontaneously, into combustion.

actions. The cerebro-spinal nerves are tubular continuations of the white matter of the centres, producing a fluid responsive to the centres themselves, practically static, and liquid during life, but susceptible, while normal, of receiving and conveying pressures; susceptible also of rapid condensation on change of condition from the natural state.

(2) In those parts of the centres called grey, where the surface comes in contact with blood charged with oxygen, there is in progress a slow combustion in which phosphorus plays a leading part, maintaining an equably reduced combustion, with the formation of dialysable saline products. The grey matter, the seat of the combustion, takes its colour from the blood, extending to the depth of the blood membrane dipping into it from its surface, and separated by the convoluted blood membrane into centres, each centre possessing its own surface of oxidation and acting as an independent organ. The white matter, on its part, is the great receptive centre, supplying combustion material, to the grey centres of combustion, as the stem of the candle supplies the wick, but acting also as the receptive medium of vibration to and from the vibrating nerves. In the combustion of the great centres sufficient heat is developed to bring the whole volume of the centres into proper tension. In the nervous cords the same process is going on, so that under the combustion sustained by the centres the nervous cords, cerebral and spinal, are brought also into natural tension for conveying vibrations from the centres to the peripheries, and from the peripheries back to the centres. The nervous fluid in the nerves is practically static and easily condensed under exposure or injury; but it is most probable that at its peripheral terminations it gives up fluid during central pressure, which fluid stimulates muscles into contraction and glands into excretion.

(3) The theory accounts for the grand nervous phenomena of life in activity and repose. Wakefulness and sleep depend on variations of tension. When the brain is at full, but not too extreme, tension; when the cerebral fire is at full, but not excessive work, all parts that respond to it are active and wakeful. When the tension is reduced—in other words, when the oxidation wanes—the process of central condensation comes on, with production of cerebro-spinal fluid and phenomena of weariness and sleep, which last until the cerebral fire attains its restoration, tension is restored, and the organic functions, subservient

to the nervous, including the muscular functions, are brought back to what is called life. The cerebro-spinal system is in fact a true water engine, so true that an artificial engine acting on the same principles could be constructed upon it for the production of motion.

(4) The theory explains the well-known effects of varying external pressures and temperatures on the central nervous organism. Atmospheric pressure tells on it through the nervous expanse, only in a more refined degree, as it does on the mercury or spirit of the barometer. Reduced pressure in moderate degree would give a freer expansion to the centres. High temperature without transpiration would produce enfeebled tension; low temperature, in moderate degree, would favour high tension; but an extremely low tension, sufficient to produce actual solidification of nervous surface, central or circumferential, would produce complete cessation of action, a fact that admits of the most demonstrable proof, local and general, by the action of cold.

(5) The theory attributes to the cerebro-spinal fluid the most important functions. It declares this fluid to be the condensed fluid of the combustion of the cerebro-spinal axis, the regulator of pressure, and the medium by which many poisonous substances are removed from the blood. Charged and recharged with various foreign substances, like alcohol, glucose, urea, chloral, strychnine, it eliminates some directly; others less easily decomposable, by repetitions of eliminations marked with paroxysmal seizures.

(6) The cerebro-spinal axis is not merely an absorbing centre for the reception of external vibrations, but a true chemical and dialysing centre, and the centre of the static combustion, by which under the fluid pressure, regulated by the spinal fluid, the nervous tension is sustained for vibration in all parts of the body that have nervous communications with it. It is a true physical autonomy.

(7) Under this theory ganglia are supplementary centres supplied from the main sources. Thus they, ganglia, lie as intermediates between the great centres and the involuntary muscles, feeding the involuntary muscles with nervous stimulus in steady and continuous supply so long as they are steadily supplied themselves, but exciting the muscles when over-supplied to over-action. Plexuses are inter-communicating points of meeting in order to enable vibrations to be carried on should one or more nerves belonging to the plexus fail in function from disease or injury. Decussating

fibres are explained as the means by which centres are prevented becoming independent of each other, and losing compensatory balance.

(8) If the theory be correct, two distinct combustions exist in the animal body—one, the central or nervous combustion, a combustion leading to low tension and pressure, the static combustion; the other, the higher combustion of the muscles and other organs, yielding the animal heat we recognize as the sensible heat of the body, independent and apparently more active, and yet possibly dependent for its continuous existence on the slow and central combustion which keeps it alight and regulates its activity by regulating its supply of blood, and, therewith, its oxygen and its sustaining substance.

*Practical Applications of the Theory to some Forms of Cerebro-Spinal Disease.*—Under the theory propounded an immense number of explanations of phenomena hitherto unexplained come, I hope, into view with perspicuity. Whatever should quicken or exalt the nervous combustion at the centre should quicken the current of impulse along the nervous tracts and excite muscular motion from action to overaction. Whatever should reduce the central oxidation should reduce the nervous currents, and produce sleep, or in extreme degree collapse and inertia or death. Let there be removed, rapidly, from the central organs the supply of oxygen carried by the blood, let the brain fire, that is to say, be suddenly put out, as in acute hæmorrhage, and so rapid will be the condensation that for a brief interval, under the pressure, the nervous influx into the muscles will throw them into convulsion and tetany. Let the brain temperature be raised as in fever, and straightway there must be an excessive nervous excitement, an overflow of nervous current, with quickened action of the involuntary muscular pulsations and direct radiation of the increased heat from the cutaneous surface of the body, the mucous surface of the viscera, and the serous expanses. What is called a chill from exposure of the body to cold or wet is explainable on this theory. The peripheral nervous surface, arrested in radiation, receives a check primarily, followed by a necessary excess of temperature and that fever which always succeeds sudden arrest of peripheral function.

The phenomena of inflammation, local and general, are also explainable on the theory without any complication or difficulty; but what I would now notice more particularly



is the exposition it offers in relation to some forms of cerebral disease.

*Reflex Action.*—The phenomenon of reflex nervous action is rendered by it explicable. The impression on the peripheral surface, which gives rise to the reflex movement after vibrating along the aqueous line up to the centre, radiates out at the centre, and exciting quicker oxidation there, causes an impulse which produces local central injury with return vibrations, by the nerves, to be dissipated in the muscle or muscles which the conducting nerves supply. But for this time is required, and, therefore, the time of the reflex. If the impression be too severe and too universal there may be no reflex, but an actual injury to the nervous centre, a stun, a stroke, or an apoplexy, fatal possibly, or, if not, followed by a reactive flash of vibrations from the centre to great groups of muscles, causing general convulsion.

*Epilepsy.*—Epileptic seizures on this argument may be peripheral in origin, due to an intense vibration to the grand centres, temporary increase of vibration there, and radiation back into the muscles until, by exhaustion of the excitement in the muscles, equilibrium is restored. In other words, if there were no epilepsy there would be apoplexy and death, so that the very phenomena of the seizure are indications of the mode by which its occurrence and frequent repetition are compatible with continuance of life.

*Mania.*—By this same theory acute mania is logically explainable as a fever; from an over-action of the great nervous centres, either springing up originally either in them, or from quickened oxidation developed in some part of the nervous expanse, in periphery, as in acute pneumonia or pleurisy.

Mania may also be accounted for from changes in the cerebro-spinal fluid. If the cerebro-spinal fluid were rapidly drawn off, the inevitable result must be convulsive movement and spasmodic movement with intense excitement up to tetanus. If it were drawn off slowly with other fluid from the blood, the result would be collapse with spasms, as in cholera. If it should accumulate in quantity, the result would be coma from pressure with some convulsive movements. If it collect into itself toxic substances, the result will vary according to the nature of the substance.

*Structural Changes.*—The theory applies to the explanation of structural changes in the nervous masses themselves.

Excess of fatty matter in them must reduce the oxidation. Increase of water in the substance must also lessen oxidation, induce pressure, lead to general absence of tension, and cause paralysis. Alcohol in the centres must lead to quick and temporary expansion and excitement, probably from combustion of it there, followed by extreme condensation, stupor, and exhaustion. Many times repeated, the action of alcohol in producing general palsy is a necessity in those who are unable to eliminate the substance with rapidity.

By this theory the phenomenon of alcoholic craving is naturally accounted for. If alcohol is burned in the brain fire, and feeds it, the "crave" for alcohol may well be as insatiable as we know it to be in the alcoholic stricken.

One more word. I found in experiments on cerebral oxidation that the process was very much impeded by the presence of some foreign substance. If, for instance, the carbon bisulphide were not removed, the oxidation was checked. It has been observed that workers exposed long to the vapours of carbon bisulphide become affected with a special paralysis and cerebral failure, and now we see that this phenomenon is, under the circumstances, inevitable. I name the fact because similar interruptions to cerebral oxidation may be induced by other disturbing substances, and melancholia and hypochondriasis may be traceable, ultimately, to some persistent disturbance of this nature.

When, Mr. President, I first undertook to read a lecture or paper before this society I thought only of presenting, in its bare outline, a theory the result of many years of study, and of long and arduous labour. On second thoughts I felt it best to invite you to witness the method of research thus far; firstly, in the hope of attracting your sympathy and attention towards future labours, in which what has now been rendered will be revised and extended as time and better observation may command; and secondly, with the desire of placing some details of this inquiry and the theory to which it has led me, on your archives as a natural resting place and one of reference for those who shall succeed us in the after time.

*Asymmetrical Conditions met with in the Faces of the Insane ; with some Remarks on the Dissolution of Expression.* By JOHN TURNER, M.B.Aberd., Senior Assistant Medical Officer, Essex Lunatic Asylum. (*Illustrated*).

Dr. Hughlings Jackson remarks that in *every* case of insanity there are negative lesions of the highest centres, which cause some paralysis, sensory or motor, or both ("Journal Mental Science," October, 1888). Evidence that this is so has been brought forward by him, principally, however, in relation to the insanity of epilepsy and post-epileptic states.

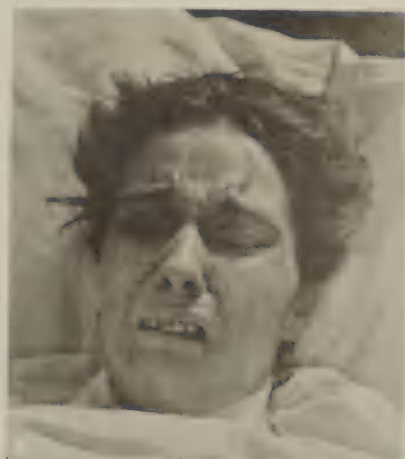
In the following pages I have considered certain asymmetrical appearances, chiefly noticed in the face, by which we can actually demonstrate the existence of paralysis in a large proportion of all cases of insanity.

The *entire* nervous system is generally looked upon as a purely sensori-motor apparatus. It is a highly-developed reflex mechanism, and consequently any cause which lowers its nutrition, or materially injures any part, must be followed by paralysis.

Should the higher levels of the nervous system be damaged, then, besides paralysis of some movements, we get over-action of others on the same side.

With the heaping up of centres in the evolution of the nervous system, the higher centres seem to have a controlling or inhibitory action over the lower, but perhaps they, more correctly speaking, protect, to a certain extent, the lower ones from discharging in response to every sensory stimulus. And when by disease, or any other means, the higher levels are destroyed, the lower exhibit a tendency to discharge with less powerful stimuli, or, as Dr. Hughlings Jackson says, they are "let go." Whilst fully recognizing that there are other and more active influences by which discharges from one part may interfere with or inhibit discharges from others, we may suppose this protecting influence to be somewhat as follows:

The lines of inter-communication between cells or centres become vastly more complex and numerous the higher we ascend in the nervous hierarchy; of this there can be no doubt. Given a definite stimulus, and accepting the doctrine (see Mercier, "Nervous System and Mind") that a discharge in any cell tends to spread in all directions, conveyed by pre-







ference along definite channels (nerve fibres), the amount or force of the discharge being in proportion to the diameter of the channel along which it flows, then, unless the stimulus was able to provoke a discharge of sufficient intensity to overcome the inertia of the innumerable molecules encountered in its diverse passages towards the periphery—it is quite conceivable that it should not pass eventually to the muscles to give objective evidence of its existence in the shape of movement—the force would be spent somewhere between centre and periphery (incomplete reflex act of Hughlings Jackson). But by the destruction of higher centres we can plainly see that in proportion to this destruction, the number of channels along which the force is supposed to spread itself being reduced with the same stimulus, the discharge evoked is more hemmed in, less dissipated, and is, therefore, more liable to reach the periphery.

The inhibitory nature of the action, therefore, of highest level centres consists in the fact that impressions impinging on the cells of these centres cause discharges in them, which are so dispersed through the innumerable channels of the highest level, as well as through channels conducting to lower levels, which are themselves so many fresh junctions where further dissipation of the force takes place, that even though some augmentation of force should occur *en route*, still, unless the original discharge has been of a sufficiently powerful nature to overcome all these obstacles, it does not reach the periphery to eventuate in muscular movements. But if the impression is strong enough then the discharge it evokes will be of sufficient intensity, in spite of dispersion, for some of it to reach the lowest centres, and so react on the periphery, a condition of affairs, be it observed, diametrically opposite to that which would occur if the inhibitory action of the highest centres was of a direct nature. In this latter case the infallible result of the evolution of the nervous system would be to destroy the individual, by rendering his existence impracticable.

In the following pages there are collected the results of some observations on asymmetry in the action of the bilaterally associated muscles, principally of the face, this being the great focus for those movements which accompany the most intellectual and emotional of our mental states. The reason why bilaterally associated movements have been chosen is obvious—in the normal state a person may vary enormously in the strength of the unassociated move-

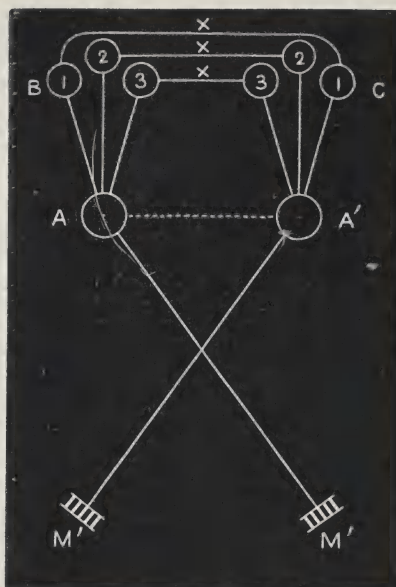
ments of one side or the other, according as this or that limb is exercised, and therefore a comparison of the two sides to show slight paralysis is out of the question. But with bilaterally associated movements it is different; they are, as a rule, of equal strength on each side, and thus the normal individual has equal pupils, protrudes his tongue straightly, and the lines produced on his face by the action of the muscles of expression are symmetrical. Warner states ("Physical Expression," p. 200-201), "I know of only two forms of facial expression that are not symmetrical—snarling and winking, and certainly these asymmetrical expressions are not the most intellectual."

We are, I think, apt to forget that the lines produced on our faces under the influence of emotion, etc., are nothing but the expression of muscle contraction due to the discharge of nervous energy, and if in viewing a face we meet with a number of asymmetrical lines, *e.g.*, on the forehead, with contraction of the occipito-frontalis, it can only mean one thing, *viz.*, that there is an unequal discharge of nervous energy from the two correlated centres, which enervate the two halves of the muscle. The absence of contraction in the muscles of expression on one side of the face with certain emotional states is just as much an evidence of paralysis as the obliteration of the lines produced on one side of the face when one facial nerve, or its nucleus of origin, is destroyed; but in the latter case, the lesion being in the fundamental centre, or between it and the periphery, there can be no more movement possible for the muscle or muscles enervated therefrom, whereas in the former case, although some movements are paralyzed, others are possible.

Any cause which interferes with the nutrition of the cells more on one side than the other, or in any way causes a lessened discharge in response to equal stimuli, will tend to produce asymmetry. The disturbance may be only what is termed functional, and therefore not necessarily fixed; thus at one time certain centres may suffer, at another time others, or again the cause may be removed entirely, and the condition will then disappear. Consequently, the asymmetry will not in all cases be fixed to one side, nor shall we expect to meet with it in every case of insanity, if, for example, both hemispheres equally share in the process of dissolution, in which case, although there may be much more paralysis of a greater number of movements, yet it will not display itself in the form of asymmetry. I believe, however, that it is







For explanation, see p. 21.

#### DESCRIPTION OF PLATE.

FIG. 1.—Asymmetry of expression in the lower part of the face in the case of an imbecile.

FIG. 2.—A case of acute melancholia with visceral delusions.

FIG. 3.—Asymmetry in the forehead, assumed with certain emotional states, in a young phthisical woman.

FIG. 4.—Another instance of asymmetry in the forehead, in a case of melancholia.

FIG. 5.—A case of acute melancholia.

FIG. 6.—Asymmetry of the forehead, in a case of chronic insanity.

comparatively rare for both hemispheres to be equally affected by disease; usually one or the other, or certain parts of one or the other, are more implicated; at any rate this appears to be so in those forms of insanity which have a definite pathological anatomy.

Neither must we expect asymmetry of expression to be peculiar to insanity; inequality in the size of the pupils occurs comparatively frequently in others than the inmates of asylums, and I have met with many and marked instances of asymmetry in the lines produced by the contraction of the muscles of expression; but although I have no tabulated results as to these cases, I am certain that they are more frequently to be met with in nervous, excitable people, in whom an unstable condition of the higher nervous centres exists. I have seen good instances in those who come to visit their insane relatives here; in hysterical girls, religious fanatics, and rarely, if ever, in robust, healthy individuals.

Some persons can voluntarily produce a most marked asymmetrical condition in the contraction of the muscles of expression. I have lately met with one who could contract the corrugator supercilii and outer half of the occipitofrontalis on the left side, but he was quite unable to contract the similar muscles on the right side only. In his case there was a strong tendency for the asymmetrical condition to become symmetrical; he had to direct his whole attention on the contracting muscles, and if he was made to smile, or in any other way his attention was diverted from the act, then the contraction became equally marked on both sides. There was evidently here some regulation of the nerve force required to produce the muscular contraction on one side only, and the fact that when one centre was discharging there was such a marked tendency for the similar centre on the other side to discharge, seems to indicate the existence of channels of communication between similar centres of both sides.

Bilaterally associated movements are probably the result in most cases of simultaneous stimulation of similar motor centres in each hemisphere, these centres being probably connected with one another by callosal fibres.

The annexed diagram will serve to illustrate in a rough way the condition of affairs that may be supposed to exist for the production of symmetrical contraction:—

A A<sup>1</sup> are the fundamental nerve centres for the muscles M M<sup>1</sup>. B<sup>1</sup> B<sup>2</sup> B<sup>3</sup> C<sup>1</sup> C<sup>2</sup> C<sup>3</sup> are a few of the higher centres

representing more special movements connected with one another probably by the callosal fibres. In the normal state of affairs the higher centres on one side are simultaneously and equally stimulated under certain conditions, and being themselves similar, they respond by discharging and producing contractions in the muscles of the two sides M and M<sup>1</sup> of equal intensity. But supposing one of the higher centres is destroyed on one side; then with similar sensory impressions impinging on the two sides, as before, we should only get contraction in the muscle or muscles of the side on which the lesion is supposed to exist. Of course it is only with the movements associated with certain emotional states, or definite sensory impressions, that the asymmetry would be produced; stimulation of the other higher centres, or of the fundamental centres lower down, would still be capable of producing symmetrical action.

As has been shown before (see p. 19) when higher centres are destroyed the lower centres are more liable to discharge with feeble stimulation, sufficiently powerfully to produce their effects on the periphery as muscular contraction, and hence it is important to bear in mind that in some conditions of deranged nervous system where the dissolution is partial and more confined to one side (the morbid process itself possibly acting as stimulus), that we get contraction of the muscles on the side *opposite* to that in which the lesion is situated. These contractions are, however, more continual than are the one-sided contractions called up by transient stimulation of the higher motor centres whose discharge accompanies certain emotional or intellectual states, and which as before remarked appear on the *same* side as that in which the lesion exists, be it functional or organic.

With these preliminary remarks, I shall now proceed to a more detailed examination of the asymmetrical symptoms met with in the face, taking first the inequality in the size of the pupils, then lateral deviation of the tongue, and lastly the muscles of expression themselves.

*The Pupils.*—The inequality in the size of the pupils referred to here is unaccompanied by anomalies of light-reflex, or accommodation for near objects, etc., and this variety must be kept distinct from those cases in which these anomalies also are met with, as in general paralysis, where frequently gross lesions (fine granulations) may be detected in the neighbourhood (*iter*) of the nuclei of light-reflex,

accommodation, etc. Of course all peripheral lesions, opacities of cornea, etc., have also been excluded.

It has long been noted that the pupils are of unequal size in many cases of insanity apart from general paralysis. Griesinger refers to it (p. 105, etc., "N. S. S. Trans.") as follows: "Inequality of the pupils is seen most frequently in paralytic dementia, more seldom in simple cases of mania or melancholia, and here also it is most common in chronic, slowly progressing, and hopeless cases. In certain cases the inequality appears for the first time during convalescence."

In operations on the brain (human and animal), and in disease or injury to the cerebrum, inequality in the size of the pupils is frequently noted. In the following cases it is seen that injury or disturbance of the cells over a very wide area of the cerebrum influences the size of the pupils.

(1). Excitation of the whole of the angular gyrus produced amongst other symptoms "contraction of the pupils." (Ferrier, "See Brain," Vol. xi., p. 2.)

Schäfer (in the same article) finds that the changes in the pupils, which are sometimes observed accompanying the movements of the eyes, are not constant. He says this in reference to electrical stimulation of the occipital lobes as well as of the angular gyri. He goes on to say, "I have occasionally obtained from stimulation, on or near the quadrate lobe, marked contraction of the pupils, such as is produced when a strong light is thrown directly into the eye; more usually, however, the movements, whatever the part stimulated, are accompanied by dilatation of the pupils."

In a monkey, which had both occipital lobes destroyed by the cautery, the pupils were dilated; in another, in which both occipital lobes were scooped out, the pupils were smallish. (Ferrier, "Brain," Vol. xi., p. 25.)

(2). Electrical irritation of the upper two-thirds of the superior temporal convolution produced dilatation of the pupils. (Ferrier.)

(3). In the motor region, results of stimulation, etc., are less contradictory, and it is with this region that we are most directly concerned, for the evidence of morbid anatomy goes to show that the brunt of disease in insanity falls on the præfrontal and frontal lobes\* (including probably the tips of the temporal lobes).

\* In the "Journal of Mental Science," January, 1890, Dr. F. St. John Bullen states that atrophy of the brain was present in 67·5 per cent. of the cases. More or less of the entirety of the brain was affected in 36·7 per cent.; but in



Ferrier and Schäfer and other observers all find that stimulation of the posterior parts of the first and second frontals produces dilatation of the pupils. As regards extirpation of these parts, Ferrier, in his Croonian Lectures (see "B. M. J.," July 12th, 1890), states: "I have recently extirpated practically the whole of the left frontal region," and he finds that amongst other symptoms the right pupil was distinctly smaller than the left.

Thus, as regards the frontal and præfrontal lobes, it seems to be agreed that stimulation (of certain parts at least) produces dilatation of the pupils; and destruction on one side, contraction of the opposite pupil.

As regards disease, tumours of the temporal lobes have produced dilatation of the opposite pupil ("Brain," Vol. xii., p. 395). Contusion and bruising of right temporal tip and third frontal has been recorded, when the left pupil was strongly contracted and the right widely dilated. (Isaac Ott, "Brain," Vol. xi., p. 434.) In a case recorded by Watson Cheyne ("British Medical Journal," February 1st, 1890)—abscess of left temporal lobe—the pupils were equal, but when the patient was fully under chloroform the right became contracted, and the left remained in a state of medium dilatation; after recovery from chloroform the pupils became equal again.

Dr. Batty Tuke ("British Medical Journal," January 4th, 1891) records the case of a general paralytic with unequal pupils, the left being the larger as a rule, who was trephined on the right side just in front of the parietal eminence, leaving an aperture into which the dura mater bulged, indicating probably compression; the dura mater was *not* punctured. After recovery from the chloroform no change in the inequality of the pupils was noted, but on the following morning they were almost equal, and remained so some time. From this case it would appear as though the general compression on the right half of the cerebrum produced contraction in the opposite pupil, and that when the compression was lessened the contraction of the opposite pupil became less.

the cases where there were partial areas affected 46·0 per cent. show atrophy of the fronto-parietal lobes, or nearly one-half. The frontal lobes *alone* were affected in one-ninth, temporo-sphenoidal lobes in only two per cent., and the occipitals in 1·5 per cent. In 322 post-mortem examinations I found general atrophy in 53 per cent. of the cases, and in the cases where there was partial atrophy the fronto-parietal lobes were affected in 15 per cent. Temporal was not quite one per cent., and occipital not at all. The frontal lobes alone were affected in 8 per cent.

I might quote many more cases of disease of the cortex and cerebrum in which the size of the pupils has been affected, but they are of so conflicting a nature that I refrain from doing so. The only thing that seems tolerably certain is the fact that stimulating lesions of parts of the præfrontal and frontal lobes produce dilatation of the pupils, and destructive lesions contraction.

For reasons stated previously (p. 22) I shall, when necessary, consider the dilated pupil, or larger pupil, as on the side opposite to the affected hemisphere. In small pupils that the contraction is not caused by paralysis of the dilator is shown when the pupils dilate somewhat when shaded.

As regards the conditions by which the equality in the size of the pupils is normally maintained, even if there be an adjusting mechanism between the nuclei of the third nerves, yet the inequality produced by lesions limited to the cortex and frequently seen in hysteria and early insanity are facts which indicate that this lower adjusting mechanism is not sufficient of itself to overcome any marked difference in the supply of nerve force from the hemispheres.

In 411 insane females, the great majority of whom were recent cases, that is under one year's duration (excluding general paralytics), inequality of pupils was noted in 105 instances, or 25 per cent. The right pupil was the larger in 58 cases and the left in 52. The reason why the totals of the right and left together are rather more (5) than the first total is because in a few cases the pupils were sometimes unequal, first on one side and then on the other, and these have been added to both left and right.

I have also collected another series of cases, which to a small extent include some of the before mentioned 411, but which are mostly composed of chronic cases; in these also the general paralytics are excluded. In these 396 females there was found to be inequality of the pupils in 140, or 35 per cent.; the right was the larger in 82, the left in 64 cases.

In both cases it will be noticed that the right pupil is more frequently the larger, the difference being very slight in the recent cases, more marked in the chronic. In 62 male general paralytics, some years ago, I noticed inequality of the pupils in 24 cases, or 38 per cent.; in these the right was the larger in 12, and the left in the same number.

In 39 female general paralytics whom I have had under very constant observation I found inequality of the pupils at one time or another during the disease in 23 instances, or

59 per cent. In 15 cases the right was the larger, and in 11 the left.

Bevan Lewis (see "Text Book," p. 269) found in 44 cases of general paralysis inequality of pupils in 27, or 61 per cent. The right pupil was the larger in 16 cases, the left in 11.

I am inclined to think that if my male cases had been more closely observed the percentage of 38 would have been raised, but I have not been able to determine this.

Amongst the general paralytics therefore the right is most frequently the larger, but the difference is very slight.

In this disease it is not uncommon for the pupils to first appear unequal at the latter end of the disease, or on the other hand, for cases in which the pupils have formerly been unequal to now become equal. During the seizures so characteristic of general paralysis, the most opposite conditions of pupils may result. They may remain equal, or the dilatation may occur on the same side as the presumed irritative lesion of the cortex, or the reverse.

It is also not unusual to find the pupils first become unequal (general paralysis excluded) shortly before death, especially in cases of rapid progress, and where this occurs it may sometimes be a valuable aid in the diagnosis as to which hemisphere is most implicated. Thus taking the following case of a female, aged 24, whose pupils were noted to be equal and enormously dilated. Five days before death the right pupil was noted to be distinctly the larger, both still dilated. Her death was undoubtedly due to degenerative brain changes, and at the post-mortem there was marked atrophy of the convolutions of the cerebrum, the lateral ventricles were dilated and full of fluid, the meninges adherent over some little patches on the left parietal lobe, but over a much greater extent on the right, in the situation of the parietal lobe, including the angular gyrus. It seems likely that in this case the pressure produced by fluid in the ventricles was the immediate cause of the inequality of the pupils, acting of course equally on both sides of the cerebrum, the centres on one side of which being destroyed, or rendered less excitable than those on the other, in the parts affected by the disease.

To sum up, we see that inequality of the pupils is present in one-fourth of the cases of insanity on admission, and that in chronic cases it becomes more common, and that it is most common in general paralysis. At

present, beyond the fact that the inequality indicates paralysis (it may be only temporary) of some part or parts, probably of the cerebrum, we can say nothing very definite as to which side is implicated in the production of the inequality, and much less what precise locality in one hemisphere is at fault, that is from a consideration of the pupils alone, but when with their information we combine that from other sources, such as deviation from the straight line of the tongue when protruded, and asymmetry in the action of the muscles of expression, then it seems probable that in some cases at least we are able to indicate which side of the cerebrum is the more disordered.

*The Tongue.*—It is very evident, when the tongue is protruded to one side or the other, on which side the paralysis is; there is not the same uncertainty as when the pupils are unequal to determine which side is the weaker. In all my cases, except one doubtful one, where the tongue has been deflected from the median line on protrusion, it has remained constantly deflected to the same side. It is not deflected sometimes to one side and sometimes to the other in the same case; although it may occasionally or ultimately be again protruded straightly.

In 306 female cases, recent admissions, the tongue, when protruded, was deflected from the middle line in 80 instances, or 24 per cent. Thus we see that there is evidence of paralysis in the muscles which protrude the tongue in about the same proportion as in the muscles which control the size of the pupils.

In these cases the tongue was deflected to the right in 38, and to the left in 43 instances. One sees in some cases marked deviation of the tongue from the straight line, which passes away as convalescence is established, but this is not invariably the case.

Now in these cases where the tongue deviates from the middle line on protrusion, whilst this condition lasts, it is, I believe, significant of a dissolution of some parts of the nervous system of much greater depth than is required to produce asymmetry in the action of the muscles of expression, for although the muscles of the tongue in their connections with speech are represented high up in the nervous system and are liable to be frequently implicated in the movements associated with intellectual acts (hence thickness and other disorders of speech occasioned by paralysis of some of these



movements), yet, though identically the same muscles may be concerned in protruding the organ, under these circumstances they will display no weakness.

Therefore, when we get the tongue deflected we must suppose that there is some disorder or weakness on one side or the other of the more fundamental muscle centres of this organ.

*The Muscles of Expression.*—The muscles with which I am principally concerned are, in the upper zone of the face, the occipito-frontalis and corrugator supercilii, and in the lower, the levator labii superioris and the zygomatics.

It is a significant fact that in studying asymmetrical action in the faces of fresh admissions, and which include a very small proportion of congenital cases, we find that the upper zone displays this condition very much more frequently than the lower zone (in the proportion of 3·7 to 1.) Among idiots, however, and indeed in all cases of congenital weak-mindedness, it is the lower zone which most frequently is affected. It is patent to even the most casual observer that this portion of the face is most frequently called into play in the expression of the emotions in these cases. The grin with undue retraction and elevation of the upper lip displaying the teeth and gums is almost a pathognomonic sign of imbecility. Dr. Warner, in his work on “Physical Expression” (p. 199), states: “The expression of mental anxiety may be contrasted with that of bodily suffering. Mental anxiety is expressed mainly in the upper zone of the face. Contraction of the corrugators makes vertical furrows between the eyebrows. In the expression of pain originating in the body or limbs we see the signs mainly in the lower zone, the angles of the mouth are drawn down. In the more animal-like causes of pain of mind—as the loss of a child, wounding the maternal instinct—it is the angles of the mouth that are depressed. Some years after the loss of a child a reference to it causes corrugation. The memory of the child has become idealized, the suffering is now more mental, less animal-like.” Anyone who has studied physiognomy at all, must, I think, accede to the truth of these statements. And I have been impressed whilst observing the faces of the female insane by the frequency with which the muscles of expression of the lower parts of the face are called into play under emotional states, which would in the sane result in expression more confined to the muscles of the upper part, or, to paraphrase Warner’s

remarks, their expressions are more animal-like, less mental. The woman depicted in Fig. 5 had a delusion that her child was dead, and whenever any reference was made to this subject her face assumed the expression seen in the photograph. At times she complained of great pain on pressure of her abdomen, and her left leg was swollen, œdematous, and painful; if her abdomen was pressed or her leg touched, her face assumed exactly the same expression as was called forth by allusion to her child. It began by elevation and retraction of the left nostril and left-half of upper lip, causing a deep naso-labial fold to appear on this side; it then gradually spread to the other muscles. Fig. 2 shows the face of a woman who had delusions respecting her viscera. She thought her tongue was wasting, and that she had no "guts" and was full of maggots. She was acutely depressed, and spent all her time bemoaning her miserable condition. I repeatedly asked her whether her disordered interior was causing her any bodily pain, and she always denied that it did.

The expressions assumed by both these women was more marked in the lower parts of the face. They both accompanied states of great mental anguish, and partook far more of the character of expressions accompanying bodily pain, or peevishness, as expressed ordinarily by children.

They may be taken as examples of the dissolution of expression as seen in recent cases of insanity. It is, however, in cases of rapid dementia, as in general paralysis, that one meets with the most striking instances of these dissolutions of expression. Gradually, but surely, the facial muscles in these patients lose their power of expressing emotions in their accustomed manner. As with their limbs, so it is with their faces—in the former they have lost the power of their most highly educated actions, and in the latter it is the finer and more delicate shades of expression which first suffer. Their facial muscles still have the power of contracting, and do so frequently and forcibly, but their actions do not harmonize—there is discordant action.

*(To be continued.)*

*The Diathesis of General Paralysis.* By G. R. WILSON, M.B., C.M., Assistant Physician, Royal Edinburgh Asylum, Morningside, Edinburgh.

Ten years ago Mr. Jonathan Hutchinson said that the description of a fresh diathesis was almost as easy as the discovery of a new nerve centre or the revelation of a new bacterium. Yet no new diathesis, so far as I know, has since then become generally recognized in our special branch of medicine. To-day the neurotic diathesis stands as god-mother to a large family of diseases, and little has been done to differentiate their ætiology, or to trace their genealogy. On the contrary there seems to be a tendency to exaggerate the importance of environment in the ætiology of many of the diseases of the nervous system, and to ignore the hereditary factor. Especially is this the case with general paralysis. Excepting the writings of a few, a course of reading on the ætiology of general paralysis would incline one to believe that there is no evil under the sun—from syphilis to the cessation of lactation—that may not sufficiently account for the onset of that disease. It seems almost as if the observers had first tried to find an acknowledged *raison d'être*, and, failing in that, had adduced as “cause” anything in the recent history of the patient at all out of the common, or which had ranked as important in the estimation of his friends.

This paper is not meant to originate anything on its subject, but rather to put in a more definite form an induction hinted at by many authorities, and to assign to the two sets of ætiological factors what seems to be their proper importance. To say that syphilis is a cause of general paralysis seems to me as untrue as to say that exposure to cold causes acute rheumatism, or that a blow on the hip sufficiently accounts for morbus coxarius. My object is to emphasize the importance of the inherited tendencies of the individual, and to put forward some arguments in favour of the hypothesis that “general paralytics are born, not made.” Perhaps we may advance to the recognition of a general paralytic diathesis—a structural proclivity to the disease, the inherited tendency of certain types of cerebral constitution. A glance at one or two of the most commonly assigned causes of general paralysis raises important questions seeming to demand some such solution.

*Sexual excess* is believed by many authorities to be a common cause of general paralysis. If that be so, what is it

that determines that sexual excess should be followed in some cases by neurasthenia only, in others by melancholia, and in comparatively few by general paralysis? And, again, why do confirmed masturbators almost never become general paralytics? In inveterate masturbation there is all the exhaustion of extreme sexual excess, and, in addition, the worry of a bad conscience and of a habit to be concealed. And the fact that masturbators become melancholic, maniacal, or delusional, but very rarely general paralytics, signifies surely that sexual excess and worry will not produce the disease unless the individual be of a peculiar diathesis. As a matter of fact it will be found that general paralytics, as a rule, have had too much self-respect and common-sense to become the victims of a sexual perversion, though not sufficient respect for society to be self-controlled.

With *alcoholic excess* the same question arises. Why should abuse of alcohol produce alcoholic insanity in one case and general paralysis in another? And, in both, is not the constitutional proclivity the important factor? One might learn something by inquiring from what manner of craving the two patients came to be alcoholic, the form of drinking preferred, and the action of the drug. It is very remarkable how many general paralytics have had alcoholic parents—as large a percentage, I believe, as of patients suffering from alcoholic insanity. Unfortunately the habits of half a century ago, in Scotland at all events, make one prepared for almost anything in the way of alcoholic parentage in the middle-aged patients of to-day in all kinds of insanity. But there are large differences in the relation of these two classes of patients to alcoholic excess. On inquiry we find that one class—those suffering from alcoholic insanity—have in many cases, like dipsomaniacs, become alcoholic in obedience to a congenital predisposition. They have had a cerebral mechanism with an “organic desire” for alcoholic stimulation which they have not had self-control enough to withstand. And there is also a peculiar liability to the immediate and remote cerebral effects of the stimulant. General paralytics, on the other hand, have, as a rule, no such congenital alcoholic predisposition. What craving they have is generally a craving acquired from previous excess—an excess which is often the outcome of more sane characteristics, such as strong social instincts and the love of good-fellowship. And the immediate effect of alcohol on their cerebral mechanism is also different, being very much the effect that it has on healthy brains, and not an unusual effect as in the case of



neurotic patients. These distinctions are not invariable. There are many mixed cases. For example, there are cases such as those reported by Magnam, in whom general paralysis followed chronic alcoholism after several attacks of alcoholic insanity, pointing to diathetic proclivities in two directions. But such cases are exceptional, and, on the whole, the contrast between the two classes of patients is strong enough to indicate a distinct difference in inherited liabilities.

Similarly we might criticise the ætiological importance of syphilis, sunstroke, worry, excitement, prolonged fatigue, and all the other "causes" of general paralysis. Their name is legion, and with each of them one may well ask if it is at all adequate to explain the disease.

Such a line of argument may be taken as a plea for a diathesis for almost any form of disease. The facts that make the case exceptional for general paralysis are the enormous number and variety of assigned causes and the absence of any assignable cause in some cases; the trifling nature of many of these causes compared with the fatally progressive nature of the disease, so that one wonders if such conditions can possibly be held to account for the overthrow of a human brain were it of anything like a normal constitution; and, lastly, the extreme rarity of the disease compared with the frequency with which we are all exposed to one or several of the acknowledged causes. In many cases one is bound to suspect that the assigned causes have had very little importance in the production of the disease—are accidents, not essentials. At all events, I think it will be admitted that we now know enough of the exciting causes of general paralysis to guard against them in any individual case if only we knew the kind of constitution likely to be attacked and the stock from which it springs. And it is in view of the possible prevention of the disease—the only hopeful treatment, as it seems at present—that it appears important to turn our attention from the immediate ætiology to learn something of the pedigree of the disease.

Another argument for the importance of the hereditary factor in general paralysis is the occurrence of the disease in very young subjects in whom the usual conditions for its development have not been fulfilled. Many cases of precocious general paralysis have been recorded, several of them about, or even before, the age of puberty. Within the last year two such cases, both of them girls, have been treated at Morning-side, and have been recorded by Dr. Clouston as illustrating one of the "Neuroses of Development" in his Morisonian

lectures of last year (see "Edin. Med. Journal," also published separately). We commonly associate general paralysis with the age of mature intelligence, and with the complex mechanism of an adult cerebrum correspondent to a busy and responsible life, and reacting to heavy stresses. The interest of these young cases lies in the absence of these conditions. In most of them also there has been a marked deviation from what one usually regards as a typical symptomatic progress—a deviation to be expected as a manifestation of the disease in brains arrested in development. Nor do the accounts of the previous histories of these children contain, as a rule, any remarkable experience which might be held to account for the onset of the malady. Blows on the head, the worry incidental to parental discipline, the strain of reproductive development are stresses of universal experience; and we turn, therefore, to a study of the inherited tendencies in such cases to find the explanation of their occurrence.

But the most conclusive argument for a general paralytic diathesis comes from a fairly large class of cases in which the disease is manifestly a family affair. We have had several cases of the kind at Morningside.

Within recent years two brothers have been treated at Morningside, both of them, undoubtedly, suffering from general paralysis. Their father was alcoholic and died from cerebral apoplexy; their mother, a highly educated woman of violent temper, was also alcoholic, and had to be placed in a home for inebriates. In one of them the disease was attributed to sunstroke. They were men of good physique, keen, ambitious, and passionate, both of them alcoholic and one at least excessively sexual. They followed the same occupation—a very trying and exciting kind of life—and were conspicuously successful. And both of them broke down under general paralysis between the ages of 40 and 45.

The case of A. B., who recently died here, is another case in point. He came of a stock in which there have been numerous breakdowns from neuroses of the higher levels. His father was a shrewd, steady, successful business man, his mother an energetic, pious housewife. He had a full cousin by both sides, who, I believe, died in the Crichton Institution, Dumfries. The fathers were not strikingly alike, but the resemblance between the mothers was a matter of general remark. Almost exactly at the same age a busy, immoral life culminated in both of these men in the onset of general paralysis.

And, lastly, there is the remarkable case recorded by Dr.

Savage and Dr. Clouston of general paralysis occurring in twin brothers. In his text-book of mental diseases Dr. Clouston gives the following account of their case:—"Lately I had a general paralytic, and Dr. Savage has his twin brother, there being a strong family history of insanity, both men of the same temperament and disposition, viz., sanguine and keen, both being of very active habits, both indulging to great excess in wine and women, both following a similar occupation—an exciting one—and both being affected by the disease within a year of one another. Such a clinical history has never been put on record before, and it shows conclusively that heredity may predispose to the disease." (See also "*Journal of Mental Science*," April, 1888.)

These facts seem to me to be conclusively in favour of a general paralytic diathesis. Of the nature and mode of development of that morbid proclivity we cannot at present speak definitely. The hereditary factors which determine it probably cannot be recognized until more complete records of family diseases are habitually made by the general public. But it is obviously unscientific to minimize the importance of heredity on account of the extreme rarity of general paralysis in successive generations of the same family. Doubtless the disease has allies which would be found commonly enough if only we knew what to recognize as such. It may be that in some cases there is a far-reaching pedigree. The vicious strain, which culminates in this morbid proclivity, may have run through many generations, each of them having peculiarities in cerebral organization marking the stages in the evolution of the disease. More often, it may be, the record of its descent would be short. The evil tendency might evolve rapidly as the outcome of a pernicious environment or a modification by perverted function. In any case the general paralytic individual commonly exhibits a preference for mating with a certain female type which seems calculated to modify considerably his children's morbid tendencies, and this may in part explain its non-transmission as such. Further, the type of constitution and the mode of life characteristic of general paralytics are apt to mark the beginning of a degeneration for the race as well as for the individual, and their children are little likely to be of a type favourable for the development of a disease which commonly needs a strongly developed organism for its occurrence.

Whatever the structural basis of the general paralytic diathesis may be, its recognition would put the disease on a

satisfactory basis, at least so far as ætiology is concerned. In this, as in all hereditarily determined diseases, the relative importance of the two factors—the predisposing diathesis and the exciting cause—will be found to be far different for different individuals. In some cases no adequate exciting cause can be adduced, and in them we must fall back on a particularly strong diathetic element. Notably, I think, the very young general paralytics form such a class, and now and then one meets with adult cases of men who have lived uneventful, unexciting lives, and whose environment has been very much what it is with all of us. On the other hand, there are many cases—a much larger number—in whose history there are incidents enough to furnish adequate exciting causes for a whole generation of general paralytics. The life record of some of these men reads like a novel by Charles Lever—brimful of incident, stress, and struggle. Such cases, I think, too commonly furnish our idea of the typical history and symptomatology of the disease.

With a view to ascertain something definite as an indication of the morbid proclivity, I have gone more or less minutely into the life-histories of a large number of undoubted general paralytics. The inquiry has satisfied me that there is a fairly constant general paralytic character. And, again, the frequency of this character in our cases here seems to me another proof that they were of a common diathesis. My observations were largely made on the poorer classes of general paralytics—chiefly the artisan class—and exclusively in the male department. I suppose it may be regarded as in part characteristic of what used to be called the “sanguine temperament,” of old regarded as predisposing to the disease. It may be said that this general paralytic character is such as is commonly met with in patients of the general paralytic diathesis, but in whom the proclivity is not so strong as to dispense with exciting causes; and of course the diathesis is something apart from the character. All that one can say of the latter is that it frequently accompanies the morbid proclivity in the tissues, and may be regarded as a manifestation of it, just as the hepatic diathesis is often manifested in cynicism. In other words, persons who inherit a proclivity to this progressive degeneration often inherit also the physical basis of this keen character. In the words of Mr. Jonathan Hutchinson, the character may be regarded as a “revealing symptom.”

The following is a sketch of the important characteristics commonly associated in general paralytics; and while, as in all



else, a perfectly typical specimen is rare, yet, if we lay aside mannerisms and other superficialities, a large number of patients will, I think, be found to conform to the type in its more fundamental characteristics.

### *The General Paralytic Character.*

Of the childhood and early life-history of general paralytics I have not full information to record; my authority has so often been the patient's wife. But it is interesting to find that many of them have been members of considerable or large families, as was the fashion of previous generations. And another fact which may throw light on their character is that, not infrequently, I have been told that one or both parents lived rather too freely.

At school the patients, whose history I have got, have been active and fairly intelligent, but not remarkable either in the class-room or the field; though at home they may have been regarded as the smart ones of the family. Sometimes the scantiness of his education has made the youth start life badly handicapped, and in adolescence he has overworked in order to come up with his neighbours; more often I have been told that he left school rather early, choosing an occupation for himself, and entering on it with some determination and ambition.

Nothing, as a rule, can be learned from the occupation of the patient. It is the man's manner of living and not his sphere of life that is of importance. He will live like a general paralytic whether he be a mason's labourer or a barrister. As often as not I have been told that, his first choice disappointing him, he has changed it for some other which better suited his tastes and ambition.

This impatient restlessness which often characterizes general paralytics seems to me to throw some light on the distribution of the disease. It appears that, even in well-advanced races, there are large numbers who have not attained that degree of civilization at which the disease occurs, and that the complex environment of city life is almost essential for its development. In considering these facts it is well to bear in mind that, in the rush from country to town, which is characteristic of our money-making age, general paralytics are not the kind of men to sit and watch the stream go by. And, while it is true that Irishmen, for example, seem to need the stress of town-life in order to the development of the disease, it is also true to say that individuals constitutionally prone to it are generally men of a

restless spirit that will not brook the narrow sphere which a hum-drum country life affords.

As to physique, the records I have seem to contradict the idea that there is anything like a constant physical type among the victims of general paralysis. On the contrary, they vary much in appearance—in height, weight, build, pigmentation, etc.—in accordance, I suppose, with their racial descent. Short of a typical physique, however, there are certain physical characteristics almost universal among general paralytics. As a rule they are well nourished, and not of a neurotic, phthisical, or otherwise delicate appearance. On the contrary, they are spoken of as men of “strong constitutions,” full-blooded and vigorous, well-favoured men. In short, they are good animals. Their neuro-muscular constitution is such as makes them capable men in situations requiring good nerve, a quick reaction time, and great powers of endurance under heavy strains. After many specific inquiries I have found it an almost invariable rule that the general paralytic is not of a conspicuously athletic constitution. On the contrary, many of them have almost entirely eschewed sports of all kinds. Certainly none of our cases here have been of the kind who *must* play, none of them dominated by the joys of asserting athletic superiority or by the delights of elaborate motor accomplishments. In considering such a statement, it must be borne in mind that my observations were made chiefly, though not entirely, on patients of the artisan class.

An inquiry into the life-purpose of these men brings out an important and almost constant characteristic. Their view of life is rarely, if ever, that of men commonly called “good.” It is essentially a selfish, non-moral view. That is to say, they are not men of persistently altruistic purpose. They are described as men who “would do nobody a bad turn,” “kind-hearted,” “generous,” “hard-working,” sometimes even “conscientious.” But none of the men whose history I have got have been men with any religious interests or of any great moral ambition. The characteristic general paralytic is a man with a large belief in himself, restless, ambitious, and with a relentless desire for the good things of this life. He is at bottom an egotist, with a great capacity for amusement, and incapable of any constant sacrifice even for those nearest him.

Alongside of the restlessness, the energy, and the capacity for enjoyment I should place an unusually strong sexual nisus as one of the fundamental characteristics of these patients. Given a general paralytic, and the making and marring of

more than one or two of his lady friends may be taken for granted. Much more even than with most men is it true that a woman is at the bottom of the interesting things in his life. He was "secretly married to a prostitute in Paris," "he made a foolish marriage with a pretty girl much below him in station," or "he was an awful man for women"—such are the tales one hears when the informant is not the patient's wife. Whether he has had syphilis or not to add to the exciting causes of his disease seems to be largely a matter of accident; if not, it may, as a rule, be taken for granted that it was only "because he was lucky," and not that he never risked it. In some cases, of course, one gets the history of married excess instead of promiscuous indiscretions. So invariable is this sexual factor, and so constant the sexual choice, that one cannot infrequently pick out the "G.P. wife" in the visitors' room. Dr. Savage says he has been "struck with the frequency of the occurrence of general paralysis in the husbands of some women of voluptuous physique," and they possess other qualities besides the "voluptuous physique" that are consonant with the husband's tastes. Their sense of the moral obligations of life is usually not too exacting, and their tastes and feelings not too refined to suit the husband, while they bring him an acceptable love of social pleasures, a capacity for making things "go," and a sufficient amount of ambition to match his own. It is often remarkable how well these wives bear up under the distressing realization that the patient is fatally diseased. It is almost unnecessary to add that there are many exceptions to such a type. As a further manifestation of the strong reproductive instinct in these men one may mention that they incline to adornment of the person such as is favourable in sexual selection with the women of their class. The patient A. B., whose case I have already quoted, was a man of the middle-class of society, and was described to me by a colleague as the "best-dressed gentleman he had seen admitted to Morningside," and this characteristic has often been observed by the patient's wife or friends.

In close relation to the strongly-developed reproductive instinct the general social instincts are, as a rule, well marked in the typical general paralytic. The desire to be considered a "good fellow" is on a par with his desire for social advancement. Of one patient an Irish acquaintance informed me that "the praise of the populace was the apple of his eye." And many of the patients' wives have told me somewhat bitterly that the husband's good qualities were conspicuous in society

and not at home ; but they have this compensatory advantage, that the husband takes pains to make his wife cut a good figure in society. Impulsively generous, good-natured, and generally companionable, the general paralytic, as a rule, has many admiring acquaintances, and I have been struck with the frequency with which I have been told that singing, and still oftener reciting, has been one of the patient's accomplishments—an interesting fact in view of the consideration how early the vocal and articulatory mechanism gives way in the course of the disease. I have already remarked that in many cases the social habits of the patient account for his alcoholic excess rather than any congenital alcoholic predisposition ; and it seems in place to repeat that his reaction to the stimulant is not an eccentric one, but very much what it is in the case of healthy brains.

Dr. Clouston sometimes says that "general paralysis is, as a rule, a certificate of general intelligence." And it is undoubtedly the case that in this respect the general paralytic is usually above the average, with a mind for practical affairs rather than of a philosophic or speculative bent. His view of debatable questions is generally the conventional one, and he is commonly impatient of unpractical eccentricities.

In temper he is described as "having it soon over," though sometimes passionate. His "spirits" are generally good, and he inclines to a hopeful view of things, born of a firm belief in his own capabilities. He is not notably emotional in the sense of defective control ; his fits of depression are soon over, but he is not always gay, nor of a sense of humour above the average.

Such, in the rough, are the fundamental characteristics frequently, though by no means invariably, associated in the victims of general paralysis. Regarded as a whole, the type is characteristic as much in what it lacks as in what it possesses. General intelligence and common sense, ambition and energy, sociability and a large capacity for enjoyment, a firm belief in oneself and a preference for handsome women are all eminently sane characteristics according to our present standard. On the other hand, some admirable qualities are notably wanting—qualities which make for a higher control to temper the tendency to excess, the selfishness, and the restlessness. I cannot refrain from mentioning Mr. R. L. Stevenson's beautifully drawn character of "Will of the Mill" as a typical contrast to these restless general paralytics, exhibiting some of their best qualities and many more besides, which they conspicuously lack.



Finally, I quote a case whose ætiology is complicated and interesting, and seems to exemplify well the conclusions in point.

C. D. was admitted into Morningside Asylum, at the age of 35, with unmistakable symptoms of general paralysis. He was one of a family of eight, of hard-working, steady parents. His education was poor, and he left school early in life, of his own accord, choosing the trade of a plumber, entering on his work and persevering in it with great energy and industry. As a young man he was prepossessing in appearance, ruddy in complexion, with fair hair and blue eyes, of stature below the average, but well-nourished and strong. He was always a favourite with the ladies and fond of their society. In his youth he was fast-living—given to excess with wine and women. After his marriage, at the age of 26, he was less alcoholic, but continued his sexual excess. His wife did not correspond to the type of physique alluded to above, but in character she was keen and social. He was always a busy man and unrestful, never happy in idleness. He was a very capable workman, and “often preferred by his employers to finish a difficult job.” About three months before his marriage he worked for a week, night and day, without once being in his bed, at a piece of plumber’s work on a cylinder in such extreme heat that he had to work naked. He dated his illness from that time, and his sweetheart thought this strain had a permanent effect on his constitution. Again, eighteen months after his marriage, he worked for a week late and early at a piece of work in an air-tight cylinder. He was feeling ill all the time, and at the end of the week he came home “blue in the face” and “fainted.” Soon after that he was in hospital suffering from well-marked paretic symptoms of lead-poisoning. For four years he did nothing, and at the end of that time he started a shop on some little capital from a plumbers’ society. In a short time, with much worry and chagrin, all his means were gone. Then he began as a cabman, and was a good driver, until one day a wheel came off his cab and he was thrown heavily to the ground, sustaining a fracture of the right leg and a severe blow on the head. Towards the end of his treatment in hospital he became manifestly insane. Now, which of these many causes accounts for his disease? Was it his early alcoholic and sexual dissipation, the latter persevered in through married life, or was it the strain of prolonged work at a high temperature, or the sustained effort with insufficient air, the lead-poisoning, the business worry, or the

blow on the head? For my part I should say, judging from his character and history, that the man was a general paralytic from his mother's womb, with a diathesis prone to the disease. Perhaps under strong external control his manner of life might have been so modified as to save him from one or all of the exciting causes of his disease, but his character had that in it that led him into all manner of excesses and subjected him to varied stresses such as are commonly followed by general paralysis in predisposed cases.

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*Lunacy in Norway, 1891.* By WILLIAM HABGOOD, Senior Assistant Medical Officer, Kent County Asylum, Maidstone.

The population of Norway in 1875 consisted of 891,000 males and 930,000 females. (The details of the last census, 1890, showing a population of two millions, have not yet been published). Of these were insane 2,186 males and 2,382 females, giving a ratio of 23 insane (20.4 males, 25.6 females) to every 10,000 of the population. The total number of admissions into asylums for the year 1889 was 756, a ratio of 4.15 per 10,000. These figures compare favourably with those given in the report of the Commissioners in Lunacy for England for the same year, viz, 29.2 insane (27.2 males, 31.2 females) to every 10,000 population, and a ratio of 5.18 per 10,000 on the admissions. Although Norway is a poor country, such extreme poverty and distress as is found in our large cities does not exist there, and this, probably, accounts for the considerably smaller ratio of insane to population. Of the 756 total admissions 32 per cent. were suffering from melancholia, 27 per cent. from mania, 24 per cent. from dementia, and from general paralysis and epilepsy, equally, 1.9 per cent. The marked preponderance of melancholia over mania is interesting, the opposite conditions obtaining in this country, where mania shows an excess of 24 per cent. The distribution of a small population over a large tract of country, the mountainous character of that country, the monotony of life, the lack of amusement, the phlegmatic character of the race, in contrast to the crowded condition of the people, the high tension of living, and the excitement of city life which prevails in this country probably explain the difference. The small number (1.9 per cent. of the admissions,—being 6.4 per cent. less than in

England) of those suffering from general paralysis might be explained in the same manner.

With a total insane population of only 4,568, there are necessarily few asylums, and these—owing to the plan of boarding out all the chronic insane suitable among the peasantry—are of small size, the largest containing only 330 beds. Altogether there are 11 asylums—three government, six municipal, and two private. They are under the superior control of the Medical Department of the Ministry of Justice, but the King has the giving of the appointment of Superintendent to the government asylums. All the asylums are governed by a medical superintendent, whose management is controlled by a committee of three members, one of whom must be a physician, appointed and paid by the government. The law concerning the admission of an insane person into an asylum is somewhat more simple than it is with us. All that is required is a certificate of insanity from one medical man, he being, if possible, the one who attended the patient in his last illness. The superintendent of the asylum has then to examine the alleged lunatic, to see if his state is such as to make his admission advisable for himself, or necessary for the maintenance of public order and safety. If anyone be discontented with the decision of the superintendent he has a right to demand the arbitration of the committee of the asylum on the matter. The superintendent's clerical duties are less arduous than in the English asylums. The only report he has to make, besides that to his own committee, is one containing the exact state of every patient to the authority or private person who caused the patient's admission to the asylum.

Criminals suspected of being insane are sent to a government asylum for observation, and remain there until a decided opinion on the matter has been formed.

The government regulations provide that autopsies be made in every case should the superintendent so desire.

I had the opportunity last summer, of seeing over two of the largest asylums, the government asylum at Rotvold, near Trondjhem, and the municipal asylum at Bergen.

I must here express my indebtedness to Dr. Holmboe, the assistant physician at Rotvold, for his great kindness in showing and explaining everything of interest at that asylum, and giving me information on the subject of lunacy in Norway in general; and also to Dr. Bechholm, the assistant physician at the Neevengaarden Asylum at Bergen.

The Rotvold Asylum, beautifully situated on the side of a

hill overlooking the sea, is an old building, containing 240 beds. The wards in most cases communicate directly with one another, and the staircases are of wood. Except in the part where the private patients reside, the rooms were not so well furnished and decorated as in most of our county asylums. There is a staff of three resident physicians, which seems a large one in comparison with our county asylums, but the asylum population, although small, is—owing to the extensive practice of the boarding-out system—a rapidly changing one, the yearly admissions averaging two hundred. Preference is given to married men for all medical appointments, not only at this, but at all asylums. The majority of the patients are of the pauper class, but private patients are taken at higher fees, and are separated from the others, their wards being better furnished and their diet more elaborate.

The treatment of the patients is very similar to that in use in this country. They have suitable employment and amusements, such as walks in the neighbourhood, dances, and entertainments; some are allowed in the summer to bathe in the sea. Baths are much used as a method of treatment, and among drugs Dr. Holmboe has great faith in the use of opium in melancholia. The only mechanical restraint in use is that effected by the wearing of jackets with long sleeves, the ends of which are tied together. Seclusion in cases of patients suffering from acute mania, with violent and destructive propensities, is freely practised, such cases being locked in single-rooms and only occasionally observed. There is a good staff of attendants, the proportion being one attendant to every nine patients. They are drawn chiefly from the same class as in this country. There is no regular staff of night attendants, each one taking his turn at this duty. All attendants sleep in the asylum, the male attendants who are married being allowed, in addition to the day off duty which is given weekly to all attendants, the night. All attendants have annual leave of eight consecutive days.

The municipal asylum at Bergen is a new building, containing 150 beds. There is nothing particularly striking about it except the arrangement of the single rooms. Nearly all these are on the ground floor, each having a lantern-light in the roof, which affords excellent light and ventilation. There is no provision for darkening the rooms. The rooms are very spacious, and are well heated by hot air. Those used for the seclusion of cases of mania with violent and destructive propensities contain nothing but a heap of straw, the patient



himself being naked. Observation is carried on through the lantern-lights by an attendant who walks up and down on a place provided on the roof of the building.

I was somewhat surprised to see this method in use in this, the most recently-constructed of the Norwegian asylums. The medical officers, however, defend the method by arguing that it is useless to give clothes and bedding to those who will not only not use them, but destroy them as fast as they are supplied.

Patients that neglect themselves sleep on loose straw, covered with a sheet. This method is found in this asylum less likely to produce bed-sores than that practised in our county asylums, in which the mackintosh placed under the patient serves to retain the urine in contact with his skin till the bedding be changed. The system of earth-closets has been adopted throughout the asylum, and answers well. There is no detached hospital for the isolation of cases suffering from infectious diseases, such cases being treated in a separate part of the same building.

Perhaps a fitting conclusion to this paper will be a consideration of the proportion of recoveries that take place in the Norwegian asylums. According to the statistics issued by the Government for all the asylums the number of admissions for the year 1889 was 756. The same year 203 were discharged recovered, giving a percentage of recoveries to admissions of 26·8. The percentage of recoveries to admissions given in the Commissioners in Lunacy Report for England for the same year was 39·7, being 12·9 per cent. higher than in Norway, notwithstanding the fact that the proportion of those admissions so unfavourable for recovery as general paralytics and epileptics is 6·4 per cent. greater in England.

One naturally turns to the deaths to explain this small proportion of recoveries; but the deaths, whether reckoned according to the daily average number resident—7·6 per cent.—or according to the total number under treatment—4·8 per cent.—are less than among the insane in England, where the numbers are 9·4 for the former and 7·4 for the latter. The most satisfactory explanation of this great difference in the two recovery rates to my mind is that the Norwegian alienists use the word “recovery” in a much stricter sense than it is used in the statistics of English asylums, as the discharged relieved—29 per cent.—exceed the discharged recovered by 3 per cent. I cannot compare these figures with those for all

the English asylums, as the Commissioners do not in their report give a list of those discharged relieved, but I have taken the figures of one of the London County Asylums containing over 2,000 patients, and, taking an average of the last ten years, find the proportion of those discharged recovered to those discharged relieved is 44 per cent. to 9 per cent., the sum of which figures nearly equals the sum of the percentages of those discharged recovered and relieved given in the Norwegian statistics. Another explanation might be that patients are for some reason discharged from Norwegian asylums before they have fully recovered, but this seems hardly probable. Whether, on an average, in Norway a longer time is allowed to elapse than in England from the beginning of an attack of insanity to the time when asylum treatment commences, I am, unfortunately, unable to say, not having the statistics relating to this matter, but if this is so it would help to explain the small recovery rate.

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*The Local Government Act of 1888: Its Probable Action on the Treatment of Insanity in England.* By J. A. CAMPBELL, M.D., F.R.S.Edin., Medical Superintendent Counties Asylum, Carlisle.

In the remarks which I am about to make I wish it clearly to be understood that, as I personally am not an accounting officer under the Act, I have no personal grievance to ventilate. In this asylum, not only I, but the other officials whose duty it is to make returns of an official nature, have always done so honestly, readily, and fully; and speaking not only for myself, but for others, we have formerly made, and hope in the future to make, all such returns in such a way as to comply with legal requirements, not only in the letter but the spirit of the law. And in such remarks as I make on our audit here, I wish to express myself plainly, but, at the same time, without the slightest suspicion of personal feeling to the auditor, who, I believe, acted conscientiously, and according to what he considered was the meaning of the law on the subject. At the same time, I doubt whether an auditor (in whom no legal or other qualifications are a necessity) is the fittest person to have the decision as to what is legal, expedient, and proper in the expenditure of a large county asylum. At present auditors certainly seem to think that their reading of the Lunacy Act should be accepted, no matter what the opinion of the com-

mittee and their legal advisers may be; and by surcharging items, they have it in their power to put committees and officials to such trouble that even if expenditure were proper, right, and in the interests both of the sane and insane inhabitants of asylums, yet one would hesitate about it with the knowledge of the correspondence, trouble, and annoyance which it might entail.

I intend first to give the experience of this asylum as the result of two audits; second, to make a statement of the gratuities given by the committees of other asylums, mentioning those in which surcharges were made; and, thirdly, to offer certain remarks and make certain suggestions.

Now for our experience. The Local Government Act came into force in March, 1889. No official information as to book-keeping, lines of audit requirements, nor, in fact, any communication on financial subjects came to us, and we waited patiently, hoping for an audit; delayed the publication of our report, and, owing to keeping it in type, incurred considerable extra expense, which had to be defrayed by the ratepayers. On the 14th of March, 1891, the auditor came, interviewed all the chief officials, myself, the treasurer, and clerk and steward. He condemned the book-keeping as a system, while praising the actual mode in which the accounts were kept, and the beautiful and accurate manner in which all the monetary matters were accounted for by Mr. Todd, the clerk and steward, and he insisted that certain new books to suit his audit should be got, and that the clerk and steward should work backwards, make up these books from the passing of the Act, and keep them on these lines for the future. He surcharged only one item, a gratuity of £10 to an attendant. This, on being referred to the Local Government Board, was at once passed, stamped, and returned to us. I do not care to enter on the subjects of conversation that were touched on with myself, but I clearly indicated my opinion as to the necessity for a code of regulations being promulgated.

The second audit took place on the 12th of August. I was away for my holidays, devoting myself, as all should who can, to the worship of St. Grouse. The books were kept and made up as the auditor wished, but he surcharged three gratuities, which I give in detail, *i.e.*, a gratuity for bringing back an escaped patient 8s., and a sum of £823 6s. for attendants' pay, because their names and rates of payment had not been fully entered on the minutes, although a book fully describing them—their terms of engagement, their pay,

and all particulars—had been laid at each meeting before the committee, signed by one of them, and the whole matter, with their characters, brought specially before the committee meeting. Also a sum of £51 given in three gratuities—one to a dying attendant, who died shortly after, the other two to deserving attendants who had resigned for special reasons.

A lengthened correspondence has been entered into in regard to these surcharges. The gratuity for the escaped patient is surcharged on the clerk and steward, though I really paid it; the Chairman of Committee had to be troubled with the other two amounts.

*Remarks.*—According to the last report of the Commissioners in Lunacy, 54,451 of the total registered insane, who number altogether 86,795, are under treatment in English county and borough asylums. Excluding the 4,959 who are in borough asylums, which are not subject to an official audit, this shows that considerably more than half the total registered insane in England are under treatment in county asylums.

Now whatever deals with the treatment of the patients in English county asylums deals practically with the treatment of the insane in England.

I got a return from the 54 English county asylums, and I find that it has been the practice to give gratuities in 29. In 18 gratuities have been given since the passing of the Act. At one asylum the auditor threatened to surcharge a gratuity, but this is the only asylum where the auditor has surcharged such payments.

This shows a great difference in the action of the different auditors in regard to the question of gratuities, and Mr. Dolby, the auditor of this asylum, seems to take the most severe view of the subject. It cannot be the wish of the Local Government Board that asylum authorities should be subject to caprice on the part of auditors. If the giving of a gratuity is illegal, it should be so for all; and Mr. Dolby himself in this asylum passed one gratuity given yearly to the Carlisle Fire Brigade while refusing to pass the others.

There are frequently circumstances occurring in asylums in which, in the interest both of the institution and its inmates, sane and insane, it is almost a necessity to give a gratuity or extra pay for special actions. For instance, a patient may take a dangerous and infectious fever, and the attendants are engaged to look after insane people and not to act as fever nurses. A gratuity for special service is the common sense way of rewarding such service. Other special services of



danger occur, such as fires and injuries. I have known a female attendant get her teeth knocked out and have to expend money on a false set. I have also myself had two front teeth smashed by a patient.

Attendants with short service break down in health, and although the Committee of Visitors have under the Lunacy Act power to grant a pension to a person broken down in health who has only served a year I believe, yet cases arise in which illness is short, and if the steps to grant a pension were gone through the person might be dead before they were completed. In such cases a gratuity relieves the urgent wants of the person. The Northampton County Council have adopted a gratuity scheme as well as a fixed scale of pension.

If patients escape something more than expenses must be given to the person who captures and brings them back. In some asylums a fixed sum is always given, but as circumstances vary it should be left to the superintendent to determine what is fair and proper. If a gratuity be not given in such a case, few people will bother to assist in getting escaped patients back.

The Local Government Board, no doubt, have the power to authorize such necessary grants as above, even although no special provision may be found for them in the law, or they can indicate the legal and proper mode of making such payments.

It seems strange to me that the accounts of borough asylums should have been exempt from the same official audit as the law has directed for county asylums. And it seems more than strange that in the Scotch district asylums, which, under another name, are really county asylums, no official audit is provided for in their new Local Government Act.

To me it seems absolutely absurd that a Local Government Act should be passed which purports to give a form of local government to a ratepayer-elected community, and that at the same time the powers of the committee of the County Councils should be so curtailed that they are unable to do almost anything, that they cannot give a deserving servant a gratuity, pay a shilling or two to a humbly-minded countryman for saving an escaped patient from drowning or going in front of a train, and that, in fact, their powers are cut down from what their predecessors possessed, though they were only the nominees of the Lord Lieutenant, and in former times were probably only elected on political grounds. It would be

interesting to know who the authority at the Local Government office is who settles questions of surcharges. We never know the inside working of public boards, but it would be, to say the least, a very extraordinary thing if the well-considered acts of an asylum committee, counselled by a paid solicitor of standing and a medical superintendent of, say, 10, 20, or even 30 years' experience, were finally decided by a junior clerk.

I think that in our case we were hardly used; that had I been clerk and steward I should certainly have demanded a public authority for having to make up my books backwards for a period of two years, to the detriment of the asylum ordinary work, not to speak of the vexation, worry, and extra night-work which were entailed. Auditors may be our masters, but we expect fairness and a good reason to be given for all surcharges, and the fault-finding about the minutes of committee, the account-keeping, and the general mode of expenditure in the asylum management which we experienced seemed to me unnecessary, considering that no indications of a line of audit had been made known to us.

I am led to a belief that a purpose of curtailing the amount spent in amusements in asylums, a uniformity in asylum diets, a mode of restricting the power of medical officers in granting extra diets to sick patients is being considered by the auditors. Now, under the magistrates we have had a free hand, and while exercising due economy, we have been allowed to do our medical work freely, and utilize medical means, amusements, etc., for the good of our patients. The dietary scales of most asylums are, though ample, extremely monotonous, and I shortly hope in our Journal to submit a set of optional, occasional, and supplementary dinner scales, with the cost of each, which may be substituted at will for the scales in force. I have always thought it must be one of the most intense hardships of an enforced asylum residence to know a whole week's set of dinners beforehand, and have nothing new to look forward to—even an inferior dinner, which is a change, would be considered a luxury.

The Commissioners in Lunacy have, ever since the Lunacy Act became law, carried out ably and honestly the intentions of the statute. One and all have been imbued with the spirit of their noble Chairman, who really framed, passed, and presided over the working of this Act for about half-a-century, and to him, his actions, his enthusiasm, and his deep personal interest in all connected with the treatment of the insane, is it mainly due that England has for years occupied a proud position as

foremost in the care and treatment of those bereft of reason, who from even the time of the Romans were considered to be the especial care of the State.

I hold distinctly that a Committee of Visitors should have power to grant a gratuity to an attendant, should be able to pay such sum as their superintendent thinks fit and proper for bringing back an escaped patient, and should pay such reasonable sums as they think fit for amusements, and that the matter of sick and other diets should be entirely in their hands, acting under the advice of their medical superintendent.

I may mention that where private patients are taken, and the excess from their keep is handed in to the building and repair fund, it is quite clear that before handing the surplus in the committee can allocate any of it or all of it as they like (53 Vic., c. v., sec. 271), "and the surplus, if any, if after carrying to the building and repair fund such sums, and providing for such outgoings *and expenses as the Visiting Committee consider proper*, shall be paid to the treasurer of the local authority to which the asylum belongs."

Now, are auditors to have the power to surcharge in the face of such a clause?

As a Scotchman, I feel proud that Mr. Ritchie, a fellow-countryman, known for his ability, his tact, his comprehensive views of all he deals with, his business qualities generally, and his intimate knowledge of local requirements, should have drawn up, introduced, and passed the Local Government Acts for England and Scotland.

It is impossible that Mr. Ritchie, a man of business capacity, of popular instincts, and of philanthropic intentions, should wish that old officials should be harassed, almost improved out of existence, that Committees of Visitors should have their powers so curtailed that they will shortly become nonentities, and that under the name of *Local Government* all authority should become centred in a London Board, that the treatment of the insane in England should suffer, and that powers never intended should be conferred on Local Government auditors.

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*Protection of Medical Men by the English Lunacy Law.* By A. WOOD RENTON.

(Continued from Vol. XXXVII., p. 547.)

In the preceding part of this paper we considered what may be called the *substantive* provisions of section 330 of the Lunacy Act, 1890. We now pass on to the *adjective* part of the section. Suppose that a medical man, against whom an action for damages for the alleged false imprisonment of an alleged lunatic has been raised, is in a position to satisfy the Court or a Judge that "there is no reasonable ground" for imputing to him "want of good faith or reasonable care," when and how shall he avail himself of his statutory privilege? Upon these important points section 330 displays the vagueness that is almost a characteristic of modern legislation. The only information that it gives us is that an application to stay proceedings may be made "summarily" (a term of which no definition is offered or even suggested) to "the High Court," and that "the Court or a Judge" may grant or refuse the application "upon such terms as to costs or otherwise" as the said Court or Judge may think fit. Now, in the absence both of any clear light from the section itself and of any authoritative judicial interpretation of it, the maxim *Omnis definitio in jure periculosa est* applies with peculiar force, and consequently the following observations are offered with some hesitation.

The first point that deserves notice is that the effect of a successful application to the High Court, under section 330, sub-section 2, is not to stay proceedings temporarily, but to stop them altogether. Now the Superior Courts in England have from very early, if not from the earliest, times possessed *an inherent jurisdiction* to protect their process from abuse by dismissing actions which were manifestly frivolous and vexatious. A few instances of the exercise of this power in comparatively recent years, may be of interest to our readers:—(1) In 1875, A., an officer in the Coldstream Guards, brought actions against B., C., and D. severally, alleging that the defendants had conspired to make, and had in fact made, false statements regarding him to the Commander-in-Chief, who had in consequence of such statements placed him on half-pay. It appeared that B., C., and D. were members of a Military Court of Inquiry appointed to inquire into



A.'s conduct, and that the statements complained of were made by them in the discharge of the judicial and official duties imposed upon them as members of such Court. According to a decision in the House of Lords in 1875 (*Dawkins v. Lord Rokeby*, L. R. 7, H. L. 744) no action was maintainable under such circumstances, and even if A. had been allowed to proceed he would have been non-suited at the trial. The Queen's Bench Division, on the motion of the defendants, dismissed each of A.'s actions as frivolous and vexatious. "I am clearly of opinion," said Mr. Justice Mellor, "that if this action were not stopped A. would never get to the jury. It is manifest upon the face of the declarations and the affidavits that it would come to a non-suit. I think we should be allowing the time of the public and the Court to be wasted if we did not interpose" (*Dawkins v. Prince Edward of Saxe-Weimar*, 1876, 1 Q. B. D., 499). (2) It was the duty of M., as Clerk of the Petty Bag Office, not to seal a writ of error\* in cases of misdemeanour until the Attorney-General had issued his fiat. C. brought an action against M., claiming damages for such a refusal as aforesaid. The Court of Exchequer stayed the action. "This action," said Baron Bramwell, "is . . . pretenceless, and has been properly stopped. . . . It is absolutely groundless, and the Court, in the exercise of its discretion, ought to stop the proceedings as being an abuse of the process of the Court" (*Castro v. Murray*, 1875, L. R. 10, Ex. 211). *Dawkins v. Prince Edward of Saxe-Weimar* and *Castro v. Murray* are fairly typical instances of the cases in which the Court was used to exercise its inherent general jurisdiction to order a stay of proceedings, and the points which should be noted are (a) that an action was not generally dismissed unless the Court was satisfied that it was absolutely groundless; (b) that the application to stay proceedings was therefore most properly made after the plaintiff's claim had been delivered; and (c) that the defendant had to "satisfy the conscience of the Court by affidavits," to which the plaintiff was entitled to reply that the . . . . action was unfounded.†

The *Rules of the Supreme Court*, 1883, added a statutory jurisdiction to the inherent general jurisdiction which we have been considering. Under these Rules (Order 25, Rule 4) "the

\* Error was an old form of appeal.

† This appears from the reports of the cases under consideration; and see *Metropolitan Bank v. Pooley*, 1885, 10 Appeal Cases, per Lord Blackburn, at p. 221.

Court or a Judge may order any pleading to be struck out on the ground that it discloses no reasonable cause of action or answer, and in any such case, or in case of the action or defence being shown by the pleading to be frivolous or vexatious, the Court or a Judge may order the action to be stayed or dismissed, or judgment to be entered accordingly as may be just." Now the scope of this rule and its relation to the old inherent jurisdiction of the Superior Courts have been well settled by a variety of decisions with which it is unnecessary to deal exhaustively. Prior to 1883 an action was dismissed only when it appeared, or was shown to be, absolutely groundless, or frivolous and vexatious. If the plaintiff's claim raised any *substantial* legal question the Court would not dismiss the action on any summary application, but the question of law had to be brought forward for argument by a special and separate plea termed a "demurrer." The Rules of 1883 have put the law in the following position:—1. Where the plaintiff's claim discloses *no cause of action at all*, or where the action is shown by the pleadings to be *frivolous and vexatious*, the Court may, either under its inherent jurisdiction or under the order above quoted, dismiss the action altogether. 2. If the claim raises any substantial point of law the Court will neither strike it out nor dismiss the action. In such case the defendant must take objection to the sufficiency of the claim in his defence, and the point of law will be solemnly argued and decided at or after the trial. So far the new rules have made no substantial alteration in the old practice. 3. If, however, a claim, while not absolutely groundless in the opinion of the Court or a Judge, discloses no *reasonable* cause of action, the Court or Judge may either strike it out or dismiss the action.

Now, the provisions that we have been examining were in force long before Section 330 of the Lunacy Act, 1890, had been passed or had come into operation, and it is obvious that they applied to actions against medical men as well as against other members of the community. Take a few hypothetical cases—(1) Suppose that A., an alleged lunatic, brings an action for false imprisonment against B., one of the Medical Commissioners in Lunacy, and it appears that the act complained of was done by B. in his official capacity. Upon these facts being properly brought under the notice of the Court or a Judge the action would be dismissed. It could not succeed at the trial, and to allow it to go on would be to waste the public time and abuse the process of the Court. *Dawkins v. Prince*

*Edward of Saxe-Weimar (abi supra)* is an authority on this point, and it is clear that the dismissal of A.'s action would fall within either the *inherent* jurisdiction of the Court or its *statutory* jurisdiction under Order 25, Rule 4. (2) Suppose, however, that B. has no official position whatever, but is simply an "unattached" medical practitioner. A. delivers his statement of claim, B. pleads (*inter alia*) by way of defence an admission by A. under seal that he has no cause of action against B. A. replies that the execution of this deed was obtained from him by the fraud or undue influence of B. These pleadings obviously raise a difficult question, partly of fact and partly of law, and here the Court will not interpose to stay proceedings. The matters in issue between A. and B. must be fought out at the trial. (3) Suppose now, as a final case, that B.'s defence sets up (a) an admission by A. that he has no ground of complaint against B., and (b) an allegation that the Commissioners in Lunacy had formerly agreed with B.'s opinion as to A.'s mental state. A. delivers no reply or delivers a reply in which he does not traverse either of those pleas. A. has clearly *a cause* of action against B., but the Court or a Judge might well hold that it is not *reasonable* and act accordingly.

What, then, has Section 330, Sub-section 2, done for the medical profession? In the first place it has extended the purview of the previous practice—it applies not only to actions but apparently to proceedings of any kind, civil or criminal. Suppose that an alleged lunatic should attempt to treat a medical certificate as a criminal libel, and should prosecute the medical man that signed it, the proceedings might be stayed. In the second place, the new Sub-section has defined more precisely the kind of evidence that the defendant must bring forward. We have dealt with this point fully in the preceding paper. It does not seem to have done anything more. It has certainly not deprived a medical man of his rights under the old practice. We are now in a position to formulate a few general rules with reference to the practice under this sub-section.

1. The *application* is closely akin in character to, and will be governed by, substantially the same rules as applications to the Court to exercise its inherent general jurisdiction, or its statutory jurisdiction under Order 25, Rule 4.

2. The application will, therefore, generally be made by *motion*, supported by affidavits setting forth all the points that the defendant thinks likely to influence the Court in his favour.

It may be made whenever proceedings have been taken, and should be made whenever the defendant is in possession of the necessary evidence.

3. The Court or a Judge may either *dismiss* the action, or *order* any of the plaintiff's pleadings to be struck out.

4. If the Court or a Judge refuse the defendant's application the action will simply *proceed to trial* as if no such application had been made.

5. The costs are in the *discretion* of the Court or Judge, and may be granted, refused, or (in case the application is unsuccessful) reserved to the trial. No general rules can be laid down as to the manner in which their discretion will be exercised; each case stands upon, and will be decided according to, its own merits.

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*Some Notes on the Use of Sulphonal as a Sedative and Hypnotic.* By Dr. J. CARLYLE JOHNSTONE.

The first fifty cases in which the writer made use of sulphonal have been selected for analysis. The drug has since been freely used by him in many other cases, which are here excluded from consideration; the results in these cases, it may, however, be stated, have been very similar to those afforded by the earlier ones.

In prescribing sulphonal, the object, in the first instance, was to procure sleep. It was soon discovered that, in addition to its hypnotic property, the drug had a strong sedative action, and as a sedative it was accordingly given a large trial. No particular class of cases was selected for treatment. The sleepless, the excited, and the miserable, all such as required rest or sleep, and could not attain it, but by drugs—to these, as they came, sulphonal was administered. What sleep and rest they got, and what other changes they experienced are here told.

It was found that among the most characteristic properties of sulphonal are the slowness of its action, the prolonged duration of its effects, and the tendency for the phenomena accompanying its use to become increasingly more pronounced and more prolonged under the continued administration of the drug. It has, accordingly, been thought advisable to arrange the results in three divisions, namely—(1) The effects produced by single doses, or doses separated by long intervals; (2) those



produced by doses repeated at intervals of 48 hours; and (3) those produced by doses repeated at intervals of 24 hours or more frequently. For the sake of convenience, these doses will be referred to in the statement as (1) Single Doses, (2) Interrupted Doses, and (3) Continuous Doses.

*A. Effects Produced by Single Doses.*—Fifty cases were treated—13 males and 37 females.

The *ages* of the males ranged from 24 to 67, and of the females from 22 to 74.

The *general health* of the patients was considered to be good or average in 21 cases (4 males and 17 females); poor in 23 (5 males and 18 females); and distinctly bad in 6 (4 males and 2 females). The following bodily diseases or other complications were present, namely: Phthisis pulmonalis in 3 cases (1 male and 2 females); heart disease in 5 (4 males and 1 female); diarrhœa with fever in 4 (1 male and 3 females); epilepsy in 2 (1 male and 1 female); acute alcoholism in 2 (1 male and 1 female); chronic alcoholism in 1 (female); blindness in 1 (female); chorea in 1 (female); hemiplegia in 1 (male); goitre in 1 (female); internal hæmorrhoids in 1 (female); inguinal hernia in 1 (female); amenorrhœa in 1; pregnancy in 2; uterine displacement in 1; fracture in 3 (femur 1 male, clavicle 1 female, and humerus 1 female); incised wounds of neck and arms in 1 (female), and sloughing ulcer in 1 (male).

The *mental condition* of the patients was as follows: Seven suffered from acute or recent mania (1 male and 6 females); 14 from acute or recent melancholia (4 males and 10 females); 13 from chronic mania (3 males and 10 females); 4 from recurrent mania (2 males and 2 females); 4 from chronic melancholia (1 male and 3 females); 3 from idiocy or imbecility (all females); 2 from secondary dementia (both females); 1 from organic dementia (male); and 2 from general paralysis (1 male and 1 female).

*Dose and Mode of Administration.*—Sulphonal was given in doses of 10, 15, 20, 25, 30, and 40 grains. It was administered in fine powder or dissolved in water, tea, milk, soup, etc., or mixed with porridge, bread and butter, or other articles of food, or suspended in mucilage. As it is almost devoid of taste, and has no smell, there was no difficulty in getting the patient to take it in his food without his being aware of its presence. The method of administration did not influence the results or the rapidity of their action to any appreciable extent. It was,

as a rule, given at the evening meal, about two hours before the usual bedtime; but, in order that the rapidity of action might be fairly tested, the patient was put to bed immediately after administration.

*I. Hypnotic Effect and Effect on Mental Condition.—*

(a.) *General Results.*—Very considerable difference in the individual reaction to the drug was experienced, 10 or 15 grains acting as an efficient hypnotic in some cases, and 30 or 40 grains being required in others. Between 30 and 40 grains was found to be the most suitable average dose. In no case did sulphonal fail to produce sleep, and, the right dose for each case having been ascertained, the action of the drug was fairly constant. The hypnotic effect was highly satisfactory in 40 cases (80 per cent.), and moderately satisfactory in 10 (20 per cent.). Women appeared to require much the same doses as men; but strong, robust cases generally required larger doses than feeble, debilitated cases.

In stating the results of single doses the average is given where the patient had more than one dose.

(b.) *Rapidity of Action.*—The duration of the interval between the administration of the drug and the occurrence of sleep varied from half-an-hour to seven hours and three-quarters, the average being a little under three hours and a half. This average represents very fairly the length of the interval in the great majority of the cases. [With reference to the statement of results in this paper, it should be carefully borne in mind that the cases dealt with were, for the most part, of a much more intractable class than those which are met with in ordinary general practice; and, moreover, that comparatively few of the patients were capable of making intelligent or trustworthy statements in regard to their symptoms.]

(c.) *Presomnial Condition.*—No excitement or other disagreeable symptoms occurred in any case during the interval before sleep. What usually happened was that excitement and distress slowly and gradually subsided until the patient was found to have fallen quietly asleep.

(d.) *Duration of Sleep.*—The sleep which followed lasted from two hours to eleven hours, the average being nearly seven hours.

(e.) *Nature of Sleep.*—In the great majority of cases the sleep was tranquil and natural, and light rather than sound; it was rarely profound; it was often easily broken by any

noise or other disturbance; it was never (as far as the evidence went) accompanied by disagreeable dreams.

(f.) *The Awakening and the Day Following.*—As a rule, the patient awoke feeling refreshed and free from any uncomfortable sensations, but in about a fourth of the cases slight drowsiness or somnolence occurred during the course of the succeeding day, the patient, if undisturbed, being found nodding or slumbering lightly. Occasionally, but rarely, a feeling of confusion was complained of. In several instances indolence or disinclination for exertion was noticed. In one case (chronic melancholia) isolated doses were occasionally followed by some slight exacerbation of the mental disorder, in the shape of increased bewilderment, wretchedness, and irritability. Otherwise no unpleasant cerebral symptoms were ever noticed. Almost invariably there was an appreciable improvement, slight in some instances and marked in others, in the mental phenomena, the drug appearing to exercise a soothing and composing effect on the irritable brain and nervous system. This improvement occasionally persisted for two or three days.

(g.) *The Second Night and Succeeding Nights.*—In 80 per cent. of the cases the hypnotic influence of the drug appeared to be continued on the second night after its administration, the patient sleeping or resting better on this night than he was used to do. In 20 per cent. the effects appeared to have passed off before the second night. Occasionally the patient slept better on the second night than on the first. On four occasions a distinct deferred action was noticed, little or no effect being produced on the first night, and more or less prolonged sleep occurring on the second; but the cases in which this occurred reacted in the ordinary manner on other occasions. In a few cases the patient slept better for several nights after a single dose.

*II. Other Cerebral and Nervous Effects.*—In one case (female, age 28; acute mania, hallucinations of hearing, mild chorea, advanced pregnancy) the patient fell asleep in about two hours after receiving 30 grains; she slept straight on for 10 hours, and slumbered nearly the whole of the following day; the next night she slept 8 hours; and the next day she slumbered, with short intervals, till the evening; when awakened she complained of having lost her hearing; the deafness passed away rapidly; the choreic spasms were slightly modified while she was under the influence of the drug. In two cases of fractured

bones doses of 30 grains assisted in procuring rest, and possibly exercised a mild analgesic effect or controlled to a certain extent the muscle-spasms.

With the above exceptions, sulphonal in single doses had no distinct effect on the motor or sensory functions, on reflex action, or on co-ordination, beyond the condition of indolence or mild fatigue already referred to.

*III. Circulation.*—Beyond a slight slowing and softening of the pulse, such as would accompany natural sleep, the circulatory system was affected in no way by single doses.

*IV. Respiration.*—The results were entirely negative.

*V. Digestion.*—In one or two cases, in which there was marked drowsiness during the day following the use of the drug, the patient, as might have been expected, did not take his meals as heartily as usual. Otherwise, no impairment of appetite occurred in any case, and there was never any disturbance of digestion or other disorder of the gastro-intestinal tract.

*VI. The Skin.*—No change in the condition or function of the skin occurred.

*VII. The Kidneys.*—The urine was not examined in a systematic way. It can only be said that no urinary troubles followed the use of single doses, and that, in the cases in which an examination of the urine was made, the ordinary tests revealed no appreciable change in its quantity or constituents.

*VIII. Sexual Organs and Functions.*—The results were entirely negative. In two cases of advanced pregnancy doses of 30 and 20 grains produced no uterine disturbance.

*IX. Temperature.*—Single doses did not appear to influence the temperature in any way.

*B. Effects of doses repeated at intervals of 48 hours. (Interrupted Doses.)*—The great majority of the 50 cases which have been referred to under the previous head of single doses were treated at one time or another, and at longer or shorter intervals, with repeated doses of sulphonal. It was usual, in the first instance, in each case, to allow an interval of at least 48 hours to elapse between each two doses. It was found that, as a rule, the full benefit of the hypnotic and sedative action of the drug could be obtained and kept up by giving it on alternate days. Repeated in this way it was prescribed for periods ranging from a few days up to six or seven weeks. The maximum and minimum individual doses were 40 grains and 10 grains respectively, and the mode of administration was



the same as described on p. 56. The following may be cited as examples of the quantity and number of doses given on alternate days :—

Name.	Sex.	Age.	Mental Disorder.	Amount of Dose.	No. of Doses.	Frequency of Administration.
J. M. B....	F.	74	Acute Melancholia.	15 grs.	5	Alternate Evenings.
A. D. ...	F.	54	Acute Mania.	20 "	4	" "
J. M. W.	F.	30	Imbecility.	30 "	4	" "
M. F. ...	F.	39	Acute Melancholia.	30 "	4	" "
H. G. S....	F.	31	" "	30 "	4	" "
M. J. F....	F.	39	" "	30 "	12	" "
H. T. S....	F.	64	Chronic Mania.	30 "	13	" "
H. M. P.	F.	35	" "	30 "	13	" "
R. R. ...	M.	24	" "	30 "	14	" "
J. K. D....	F.	49	Chronic Melancholia.	30 "	26	" "
" "	"	"	" "	40 "	13	" "
J. S. ...	F.	54	Acute Mania.	40 "	7	" "
M. B. H.	F.	53	Chronic Mania.	40 "	15	" "

*I. Effect on Sleep Function, Mental Condition, and Nervous System.*—The first few repeated doses were followed by the same results as regards the rapidity and duration of the hypnotic action and other after-effects as those produced by single doses. After a few days' treatment, the period varying considerably according to the dose, the peculiarities of the case and individual idiosyncrasy, the action of the drug almost invariably tended to become more prolonged, so that the effects of one dose had barely passed off when the next dose was given (48 hours after). At the same time the hypnotic action became gradually more pronounced, and went on slowly increasing as long as the drug was continued, the improvement in sleep being shown not only on the nights when sulphonal was given, but also on the nights when it was withheld. When the patient was brought well under the influence of the drug the difference in the amount of sleep between the sulphonal-nights and the non-sulphonal-nights was generally slight. It was never necessary to increase the dose owing to habituation; on the other hand, after a few days' treatment, sleep could occasionally be secured by gradually diminished doses. On stopping the drug the improvement in sleep almost invariably

continued for periods varying from a few days to a few weeks, according, as a rule, to the quantity and number of doses administered. In several instances a few doses were sufficient to induce and establish the sleep function, and in other instances, where sleeplessness again returned, a few more doses would again secure sleep for a considerable period.

After several doses had been given drowsiness during the day became increasingly more frequent, and it was always present to a greater or less extent after prolonged treatment. Along with this symptom a sort of dreamy confusion became noticeable, and, following it, an indolent condition which passed with further treatment into slight weariness and fatigue, followed in extreme cases by slight enfeeblement and shakiness of locomotion. These phenomena were distinct in some cases and very slight in others, the individual reaction to sulphonal showing great variation; but the symptoms were never (with interrupted doses) such as were considered alarming, and they speedily passed off when the drug was stopped, seldom, even after several weeks' treatment, persisting more than a few days.

With the exception of the phenomena referred to, sulphonal, in the doses and at the intervals stated, gave rise to no disagreeable cerebral symptoms or appreciable disturbance of the motor, sensory, or reflex functions.

With repeated interrupted doses a gradual, generally prolonged, and frequently permanent improvement in the mental condition occurred, characterized by a marked diminution in the excitement, the irritability, the motor restlessness, and the wretchedness. In no case did sulphonal fail to effect at one time or another some beneficial influence on the mental state. This benefit was not accompanied by any serious drawbacks; the improvement, moreover, occurred in the feelings as well as in the conduct, the patients frequently exhibiting in their demeanour an expression of increased comfort and ease, and in only one case (the case already referred to under single doses) was there an occasional exacerbation of the mental disorder which appeared to be due to the use of the drug.

*II. Circulation.*—After interrupted doses the pulse generally assumed a softer character than before. Otherwise the effect on the circulation was negative. No cyanosis, fainting, flushing, or pallor ever occurred, and in five cases of cardiac disease (valvular and degenerative) the circulation was not disturbed in any way.

*III. Respiration.*—Interrupted doses gave quite negative

results. In three cases of phthisis pulmonalis no unpleasant symptoms were caused.

*IV. Digestion.*—What has been said of single doses applies also to interrupted doses. Frequently the appetite seemed to improve under the use of the drug, and patients who had previously required to be fed would sometimes take their meals voluntarily after a few doses. There was no evidence of any vomiting, diarrhoea, constipation, abdominal pain or tenderness, thirst, or other gastro-intestinal trouble which could fairly be attributed to the use of sulphonal. It must here be stated, however, that in the cases of three patients, who were having 30 grains on alternate nights, diarrhoea *did* occur after a few days' treatment; but there was no reason to suppose that this was due to the sulphonal. The Institution was at the time suffering from an epidemic of diarrhoea with fever, due to insanitary causes, and among the victims of the epidemic there were three patients who happened to be receiving sulphonal. Four other patients, it may be added, who were suffering from the same disorder, were, with the view of obtaining rest and sleep, treated with sulphonal with good effect, the intestinal symptoms being in no way aggravated, but rather being somewhat ameliorated (probably owing to the quietude which was obtained).

*V. The Skin.*—No change in the condition or function of the skin occurred. There were no eruptions, and no unusual dryness or moisture.

*VI. The Kidneys.*—What has been said under the head of single doses applies equally to the results of interrupted doses.

*VII. The Sexual Organs and Functions.*—The results were entirely negative. Sulphonal was given in two cases of advanced pregnancy without the slightest evil result. One woman received two doses, one of 30 grains and one of 20 grains, separated by an interval of several days. The other received three doses of 20 grains on consecutive days, followed on alternate nights by four doses of 30 grains.

*VIII. Temperature.*—Owing to the various physical and mental disorders present in the different cases treated, the temperature charts rarely gave a normal reading; but a careful consideration of all the factors of each case pointed to the conclusion that sulphonal in interrupted doses, even after several weeks' use, exercised little or no influence on the temperature, the only modification which could ever be shown to result consisting in a very slight fall in the scale.

*C. Effects of doses repeated at intervals of 24 hours or more frequently.* (Continuous Doses.)—In twenty cases (six men, 14 women) sulphonal was given in doses repeated on consecutive days or two or three times a day. The individual doses were 10, 15, 20, and 30 grains, the largest quantity given in one day being 60 grains, and the smallest 10 grains. The total quantity given in this way ranged from 40 grains spread over two days to several ounces extending over a period of two or three months. The table on page 64 shows the larger quantities and longer periods of administration.

The daily or more frequent repetition of the drug had, as a rule, the effect of "sulphonalizing" the patient much more rapidly and more profoundly than was the case when the doses were separated by intervals of forty-eight hours. But here, again, great difference in the individual reaction was met with. Generally speaking the phenomena which followed the use of continuous doses were the same in kind, but more pronounced in degree than those which have been described under the head of interrupted doses.

*I. Effect on Sleep Function, Mental Condition, and Nervous System.*—After a few days' continuous treatment the patient invariably began to sleep better. Sleep came on sooner, and lasted longer and tended to become heavier in character. The awakening began to be accompanied by a feeling of mild confusion, and drowsiness during the day-time set in, and became more pronounced. It was not unusual for a bad case of insomnia when well under the influence of the drug to sleep for ten hours regularly every night for several weeks. On pushing the drug further the condition became one of almost continual somnolence, the whole night being spent in unbroken sleep and the day in fitful slumber. (The patients, it should be stated, were not confined to bed during the day-time, but were encouraged to occupy themselves in the usual ways). The potency of the hypnotic action, as has been said, varied greatly in different cases, and it was found impossible to tell beforehand how much sulphonal should be given or how long it should be continued to produce the desired effect. In no case did the prolonged use of the drug appear to diminish its potency. The rule was for the hypnotic action to become gradually more pronounced as long as the drug was continued, and the effect could generally be kept up by smaller doses than were at first required. The action almost invariably persisted after the discontinuance of the drug for several days, weeks, or months, according to the dose, duration of treatment, and



Name.	Sex.	Age.	Mental Disorder.	Amount and Frequency of Dose.	Total Quantity Given.	Period Covered by Administration.
J. H. ...	M.	63	General Paralysis.	20 grs. every p.m. $\times$ 8, followed by 15 grs. every p.m. $\times$ 7...	265 grs.	15 days.
A. L. ...	M.	40	Recurrent Mania.	15 grs. every p.m. $\times$ 19 ... ..	285 grs.	19 days.
A. G. ...	F.	40	Acute Melancholia.	30 grs. every p.m. $\times$ 6, 20 grs. every p.m. $\times$ 3, 15 grs. every p.m. $\times$ 4 (consecutive) ... ..	300 grs.	13 days.
M. R. ...	F.	40	Imbecility.	30 grs. every a.m. and p.m. $\times$ 4, followed by 30 grs. every p.m. $\times$ 4	380 grs.	8 days.
A. V. ...	F.	38	Secondary Dementia.	30 grs. every p.m. $\times$ 14 ... ..	420 grs.	14 days.
M. Y. ...	F.	45	Chronic Mania.	30 grs. every a.m. and p.m. $\times$ 10 ... ..	600 grs.	10 days.
J. S. ...	M.	32	Acute Melancholia.	30 grs. every a.m. and p.m. $\times$ 3 (one day's interval), 30 grs. every a.m. and p.m. $\times$ 8 ... ..	660 grs.	12 days.
J. K. D. ...	F.	49	Chronic Melancholia.	10 grs. every a.m. and p.m. $\times$ 12, followed by 15 grs. every a.m. and p.m. $\times$ 18 ... ..	780 grs.	30 days.
A. W. L. ...	F.	43	Chronic Mania.	30 grains every a.m. and p.m. $\times$ 14 ... ..	840 grs.	14 days.
H. M. P.	F.	35	Chronic Mania.	15 grs. ter die $\times$ 8, 5, 3, 1, 5, and 3, with intervals of 4, 4, 4, 8, and 9 days ... ..	1125 grs.	54 days.
R. R. ...	M.	24	Chronic Mania.	30 grs. every a.m. and p.m. $\times$ 23 ... ..	1320 grs.	23 days.
S. McC. ...	F.	39	Recurrent Mania.	30 grs. every a.m. and p.m. $\times$ 28, 30 grs. every a.m. $\times$ 41, 15 grs. ter die $\times$ 7, 4, and 2, with two intervals of one day each ... ..	2655 grs.	84 days.
A. T. ...	M.	64	Recurrent Mania.	30 grs. every p.m. $\times$ 3, followed by 30 grs. every a.m. and p.m. $\times$ 43 ... ..	2670 grs.	46 days.

idiosyncrasy, etc. With doses given in the day-time the hypnotic effect at night was less pronounced than when similar doses were given in the evening, while the day drowsiness was, naturally, more marked.

Continuous doses almost invariably produced a distinct sedative and soothing action. Sooner or later, but generally within a few days, and often after two or three doses, the patient was noticed to be much quieter than before. Restlessness was replaced by indolence, excitement gave way to tranquillity, and melancholy became assuaged. With further doses the indolence became exaggerated into sloth, which was shown not only by the disinclination for exertion, but also by the hebetude and sluggishness of the mental operations, along with which there was always more or less bewilderment or dreamy confusion; the quietude assumed the character of torpidity; all interest in outward concerns seemed to be lost, and the patient's only desire was to be allowed to succumb to the sleep which was overwhelming his whole being, and from which it ultimately became somewhat difficult to arouse him. No disagreeable dreams or other unpleasant feelings were complained of, except an occasional "swimming in the head." The rule was for the mental phenomena to become gradually more pronounced during the continuance of the drug and to persist for some time after its withdrawal, the sedative effects continuing for a satisfactorily long period, and the hebetude and confusion passing off within a few days. Occasionally the stupifying action supervened with unexpected suddenness during the course of treatment, and it was accordingly found necessary to watch very carefully the cases under continuous doses.

In every case where continuous doses were given for periods of more than a few days' duration certain motor symptoms became apparent. These ranged from mild feelings of languor and fatigue up to a condition of complete muscular collapse, in which the patient could neither walk, nor stand erect, nor help himself in any way. Great variation in the individual reaction was experienced, and in this particular, women appeared to be more susceptible to the influence of the drug than men. Thus one man after having 30 grains twice daily for twenty-two days merely suffered from slight lassitude and fatigue, while another man after nineteen days' treatment with 15 grains once a day displayed distinct unsteadiness of gait, and a woman after a few days' treatment with 15 grains

three times a day suffered from great muscular debility, with staggering gait and greatly impaired powers of locomotion. The first symptom noticed was the indolence and disinclination for exertion already referred to. This became more pronounced, and passed into distinct weariness and fatigue, followed by unsteadiness of gait, which developed into distinct staggering, accompanied by enfeeblement and uncertainty of the movements generally, the lower extremities being always the most affected, the patient lurching about insecurely on his feet like a "bad sailor" at sea. On pushing the drug further the patient became reduced to an utterly helpless condition; he could neither walk, nor stand erect, nor sit up; his arm and hand movements were feeble and drowsy; his articulation resembled that of alcoholic intoxication, and his whole appearance was that of a very drunken man. With this "drunkenness of the muscles" there was not associated any of the excitement, or hilarity, or other characteristic signs of alcoholic intoxication, the mental state, as has been said, being one of comparatively mild stupor, and the patient when aroused being able to converse with very considerable clearness and sobriety. The symptoms were occasionally accompanied by a feeling of giddiness, but the essence of the condition appeared to be extreme motor fatigue with impairment of muscular control and co-ordination. The progress of the symptoms was, as a rule, slow and gradual; but occasionally there was a sudden increase in their intensity during the course of treatment. They disappeared for the most part within a few days after stopping the drug, but the feeling of languor often persisted for a considerable time.

In no case was there any appreciable modification of general sensation, or of the special senses of sight, hearing, taste, smell, or pain. In extreme cases the "muscular sense" appeared to be much impaired, and the finer touch sense was probably considerably modified, the hand and finger movements being very clumsy and fumbling, and the gait being strongly suggestive of peculiar feelings in the feet and legs. The skin and tendon reflexes were not affected to any extent.

*II. Circulation.*—Beyond the fact that the pulse was, as a rule, soft in character, continuous doses gave quite negative results as far as the circulation was concerned.

*III. Respiration.*—The only case in which any modification of the respiration occurred was that of a male general paralytic, aged 63, who received 20 grains every evening for eight days, followed by 15 grains every evening for seven days. In this

case there was a distinct slowing of the rate towards the end of the period.

*IV. Digestion.*—In four cases (one man and three women) the appetite occasionally failed after large doses or prolonged treatment. Two of the women suffered from vomiting, one very slightly after a month's continuous treatment, the other more severely on several occasions after a few doses. (This woman was in other respects very susceptible to the action of the drug.) Otherwise no gastro-intestinal trouble occurred, and, as in the case of interrupted doses, it was not unusual to witness an improvement in the appetite and general health during the continuance of the drug. When the patient was thoroughly under its influence he, as a rule, showed no inclination for food or anything else, but even at this stage he swallowed food readily when it was presented to him; the digestive function was apparently not injuriously affected in any way, and no constipation, diarrhoea, thirst, or abdominal pain or tenderness was ever complained of.

*V. The Skin, Kidneys, and Sexual Organs and Functions.*—Continuous doses gave the same negative results as single and interrupted doses.

*VI. Temperature.*—After a careful consideration of the records, allowing for all sources of interference with the heat state, the conclusion came to was that even after several weeks' continuous doses, sulphonal produced very little, if any, appreciable effect upon the temperature. In a few cases a very slight fall occurred, and this was followed in one or two cases after prolonged treatment by a very slight rise in the scale.

Continuous doses were employed for the most part in those cases in which the acuteness of the symptoms was such as would not yield to less frequent doses. In cases of ordinary severity the full hypnotic action could nearly always be obtained with interrupted doses, and a sufficient sedative effect could at the same time be secured which was free from any unpleasant or alarming symptoms. In more intractable cases, however, although some sleep might be procured, but little abatement of excitement occurred until the drug was given in daily doses, and in extreme cases violent and protracted excitement was only modified by doses repeated twice or three times daily. Such doses were always followed, sooner or later, by quietude, but the more rapidly the drug was repeated the more likely was the quietude to be accompanied by the somewhat grave cerebral and motor symptoms, which sooner or later invariably supervened. The results of the experiments pointed to the



conclusion that when these unpleasant symptoms were at all pronounced it was very doubtful whether any real benefit had been conferred on the patient; for, although no distinct permanent injury could ever be clearly shown to result, it was evident in several cases that no permanent good had been effected. and the writer was inclined to think that in some instances a certain blunting of the mental faculties, and possibly a certain loss of physical vigour, *might* with some plausibility be attributed to the prolonged use of sulphonal in continuous doses. In those cases, however, in which it was possible to procure a maximum of the beneficial influence of the drug with a minimum of its injurious effects, the improvement in the mental condition was not only gratifying at the time, but was generally lasting, several patients owing their recovery (in the writer's opinion) in part, at least, to the judicious continuous use of sulphonal.

The impression made on the writer's mind by the results of the experiments recorded in this paper may be gathered from his present practice in prescribing sulphonal, which is always to begin with single doses administered in the evening, and when it is necessary to repeat these to do so at intervals of 48 hours. If this is found insufficient to produce sleep and quiet, the interval is next reduced to 24 hours. In this way a satisfactory hypnotic effect has always been obtained; but when the excitement is intractable, and the drug is employed primarily for its sedative action, it is not infrequently found necessary to further reduce the interval by giving it twice a day, namely, in the morning and evening. No distinct advantage has ever been gained by prescribing sulphonal more frequently than twice a day.

*D. General Effect of Sulphonal upon the Different Forms of Mental Disorder.*

*Acute or Recent Mania.*—Seven cases were treated (one male and six females). In all the results were highly satisfactory. Given in sufficient quantity and for a sufficient length of time the drug invariably acted as an efficient sedative and hypnotic, the general condition of the patients, both mental and physical, improved steadily under its use, and no evil effects of any importance or permanence followed. Four of the patients have recovered, and in the remaining three recovery is anticipated.

*Acute or Recent Melancholia.*—Fourteen cases were treated (four males and ten females). In three cases sulphonal produced little beneficial effect on the mental condition, and the

hypnotic action was not pronounced. The drug, however, was not given a sufficiently long trial, and one of the patients was in a dying condition when it was prescribed. In the remaining eleven cases the results were distinctly satisfactory, both the hypnotic action and the soothing effect upon the mental distress or excitement being very gratifying. Two of the patients were suffering from acute alcoholism, and in their cases single doses of 30 grains were given with distinct benefit. Eight of the patients have recovered, and recovery will in all probability occur in a majority of the remainder. None have suffered in any way from the use of the drug.

*Chronic Mania.*—Thirteen cases were treated (three males and ten females). In seven cases only a few doses were given. Six cases were under more or less prolonged treatment. In every case the hypnotic and sedative effects were distinctly satisfactory. With repeated doses given for prolonged periods there was always an abatement of the excitement; restlessness, noisiness, and intractability gradually diminished, and the patient became quiet, docile, and inoffensive. There was thus effected in each case a marked temporary improvement, which always persisted for some time after stopping the drug. This beneficial effect was, however, apt to be attended by disagreeable conditions of drowsiness, stupor, and fatigue, which, on pushing the treatment further, assumed the somewhat grave characters already described. None of the chronic cases could be said to have been permanently benefited by the use of sulphonal; but they were all previously looked upon as hopelessly incurable, and none suffered any appreciable damage. While under the influence of the drug the patient was for the time kept in a quiet and not uncomfortable state, and was saved from the risks and the wear and tear of system to which his excitement would otherwise have exposed him, while, as regards his neighbours, he ceased to annoy.

*Recurrent Mania.*—Four cases were treated (two males and two females). One female had only a few doses (with good sedative and hypnotic effect). Three cases were under continuous treatment for prolonged periods and on different occasions. The results were not constant, but, on the whole, they were gratifying. All were subject to periodical attacks of noisy, dangerous, and destructive excitement, and one suffered from occasional epileptic seizures. The duration of the attack was sometimes shortened by sulphonal and sometimes not; its intensity was always modified to a greater or less extent. Repeated doses gave the patients sleep and reduced them to a

quiet, inoffensive, and moderately rational condition. The drug was pushed in each case, and the cerebral and motor phenomena were marked, but no permanent evil effects resulted. All the cases were of old-standing and quite incurable. Since being treated with sulphonal, it is right to add, one of the patients has died, partly from the results of an accident and partly from old heart disease, and the two others are dying of phthisis pulmonalis. No connection between the cause of the disease and the treatment can be traced.

*Chronic Melancholia.*—Four cases were treated (one male and three females). In three cases only a few doses were given (with good sedative and hypnotic effect). The fourth patient was on several occasions kept under the prolonged influence of sulphonal. The results in her case were not, on the whole, satisfactory. She suffered from sleeplessness, and both by day and night she was restless, loquacious, excited, and miserable. In sufficient doses sulphonal seldom failed to give her sleep, but it was sometimes followed on the next day by disagreeable drowsiness, confusion, and increased irritable excitement, and though, when pushed, it ultimately quelled her excitement, it produced at the same time a stupifying or bewildering effect, accompanied by a feeling of great fatigue, and no permanent improvement followed its use.

*Idiocy and Imbecility, and Secondary Dementia.*—Three cases of idiocy or imbecility and two of secondary dementia (all females) were treated for sleeplessness or attacks of excitement. In all the hypnotic and sedative effect was satisfactory.

*Organic Dementia.*—One man was treated. He suffered from heart disease, with softening of the brain, hemiplegia, and occasional epileptic attacks. In his case 36 grains acted as a powerful and harmless hypnotic.

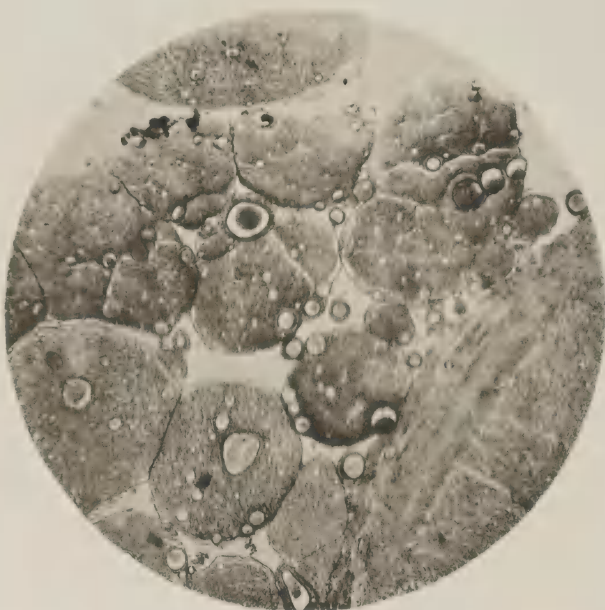
*General Paralysis.*—One man and one woman were treated. In the case of the woman the results were mild and somewhat negative, but the drug was not given a sufficient trial. In the man's case, one of obstinate sleeplessness and continual restlessness, the hypnotic and sedative effect was most pronounced, quietude and sound sleep of prolonged duration being produced by single and repeated doses.

*General Conclusions.*—Basing one's conclusions on the foregoing statement of results, the advantages and disadvantages of sulphonal may be briefly summed up as follows:—*In properly regulated doses* it is an efficient hypnotic, and, compared with other hypnotics, its action is fairly certain and constant. The sleep produced by it is natural and tranquil

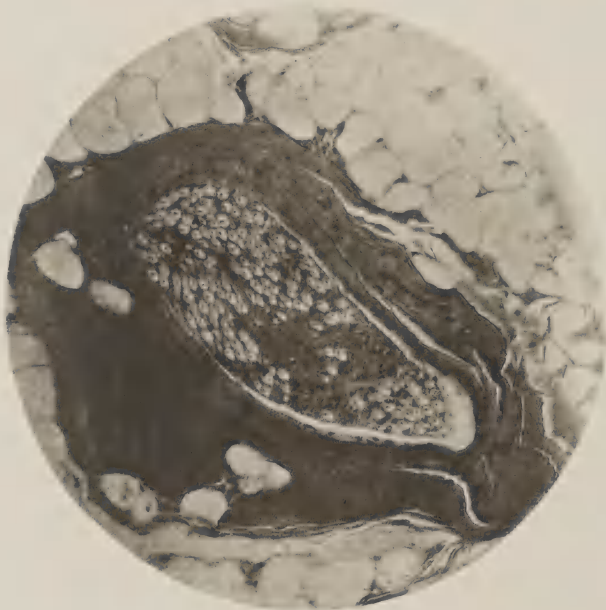




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and undisturbed by dreams. It has no injurious effect on the circulation, respiration, appetite, digestion, or temperature, or on the general health. After a time it may be discontinued or the dose reduced, the patient continuing to sleep well.

It has a distinct sedative action in mental excitement or distress, and may be employed with great benefit in cases of insanity, especially in such as are of a recent or acute character.

Its chief disadvantages are the slowness of its action and the tendency of the action to be prolonged into the succeeding day, and to be followed by drowsiness, confusion, giddiness, or fatigue, and the serious cerebral and motor symptoms which are apt to follow repeated doses.

While the writer is unable to claim for sulphonal that it is a perfect hypnotic, he feels convinced that it is a very valuable one, and, while he cannot extol without reserve its undoubted sedative properties, he is satisfied that in this respect also sulphonal is a very excellent addition to the medicine chest.

*Note.*—The sulphonal used was manufactured by Riedel of Berlin and supplied by Messrs. J. F. Macfarlan and Co., Edinburgh.

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## CLINICAL NOTES AND CASES.

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*The Clinical History and Morbid Anatomy of a Case of Anterior Poliomyelitis with Peripheral Nerve Changes.*  
With Illustration.\* By F. ST. JOHN BULLEN, Assist.  
Med. Officer, Wakefield Asylum.

R. P., æt. 61; married. Admitted into Wakefield Asylum March, 1885. Formerly labourer in a mill.

It was said that patient had been very intemperate, and that his wife and daughter had contracted venereal disease from him. His mother was stated to have been paralytic for several years before death. This is the only instance of family neurosis.

When admitted was somewhat depressed, but showed no dementia whatever, and his narrative, which follows, was coherent and detailed.

Nine years ago he partly fell through a trap-opening, his body falling across and striking the edge of the trap. Able to pursue

\* A clinical history of this patient was published by my former colleague, Dr. Wm. Dudley, in "Brain" (April, 1885). The history in the present paper is taken from his brochure and from entries in the case book, together with a few additional notes.

his occupation for a week, he then sought advice at the Leeds Infirmary for commencing paralysis in the left leg. Was admitted. After three days was almost completely paralyzed in both lower limbs. Was discharged at the end of three months, able to walk with the aid of sticks. Never regaining half his former strength, he worked for two years and nine months, when he suffered another accident. A weight of nine stones fell on his left hand, and he was not released for three hours from it. The arm gradually wasted, and became paralyzed; its fellow followed suit five years after.

Three years ago his sight began to fail. He now can only distinguish print with powerful lenses. His voice has altered during the past twelve months.

*Physical Condition.*—Cranium small, dolicho-cephalic. A scar with depression of bone at superior angle of occipital bone. Pupils circular; right  $5\frac{1}{4}$  m.m., left  $4\frac{1}{2}$  m.m. Reflex iridoplegia in both; no consensual reaction. Contract slightly with accommodation; no dilatation with cutaneous stimulation. Tongue, lips, and facial muscles free from tremor, and movements of the former fairly well co-ordinated.

No reflexes, superficial or deep, are obtained in upper and lower extremities; muscular percussion-wave scarcely perceptible.

All the limbs are greatly wasted, especially the left, and the upper more extensively than the lower. The hands and forearms are nothing but skin and bone; many of the muscles seem to have disappeared entirely; the forearms are perfectly flattened on flexor and extensor aspects, both wrists are dropped, thenar and hypothenar eminences have vanished, and there are deep depressions between the metacarpal bones. The ungual phalanges are incurved so as to give the hand a clawed appearance. Also extensive atrophy of arm and shoulder and back musculature. The lower limbs are relatively more wasted below the knee, and the anterior and external muscles more than the calf. The left leg is notably incurved, owing to atrophy of the peronei.

The patient cannot approximate the thumb and fingers; completely fails to grasp with left hand, and only most feebly with the right. Can neither pronate nor supinate the hands, nor flex or extend the wrists. Movements at shoulder very limited and feeble, as also at elbow; a little better on the right side.

There is passive extension of feet on legs, and some flexion of toes. He can move the limbs a little, but their motions are irregular, jerky, and inco-ordinate. Power of resistance practically *nil*. When helped to stand, flings his legs about in disorderly fashion, and his legs double up at the knees as soon as any weight is thrown upon them.

Skin of feet and left upper arm is polished, white, and covered with branny desquamation—almost ichthyotic. There is a considerable degree of anæsthesia of the limbs and trunk; in some

places he cannot feel the prick of a pin over an extensive area; this is so in the case of the lower limbs and abdomen. In all parts sensation is much delayed, mostly so in the legs. There is analgesia as well, the face excepted; the neck is somewhat involved, the rest of the body not completely, but to a considerable degree.

Patient has but small control over bladder and rectum; sensation of evacuation of either is almost or quite abolished. Senses of taste and hearing are fairly acute; that of smell is absent. There was slight internal strabismus of right eye and diplopia.

He suffered at this time and for several months after with distressing fulgurant pains in the limbs and body, also muscular startings accompanied by severe pain. These became less frequent and intense, but never entirely departed.

Otherwise no change took place in his symptoms up to the time of his death, five years later. He was in bed the whole period, and without bed-sores except for three weeks during the later months, and these rapidly healed.

*Electrical Reactions.*—As regards these in the upper limbs, serial alterations present themselves in both rhomboidei and left pectoralis major; the anodic closing contraction had nearly overtaken the Kathodic closing contraction in the right brachialis anticus and left triceps, whilst no faradic or galvanic reaction could be obtained with the supinators of the forearm, the extensors or flexors of the hand and wrist, the intrinsic muscles of the hand, and the right pectoralis major.

The reactions may be tabulated as follows:—

Faradism.		Galvanism.
Deltoid	(right) minimum at 9.	KSZ>ASz
	(left) 0	KSZ>ASz
Rhomboid	(right) 0	ASZ>KSz
	(left) 0	ASZ>KSz
Biceps	(right) 0	KSZ>ASz + AOZ
	(left) 0	KSZ>ASz + AOZ
Brach. Ant.	(right) 0	KSZ>ASZ
	(left) 0	KSZ>ASZ
Supinator L.	(right) fair with weakest current.	KS—AS—
	(left) 0 with strongest.	KS—AS—
Extensors of hand	(right) }	KS—AS—
(Extrinsic)	(left) }	
Flexors of do.	(right) 0	KSz>ASz
	(left) 0	KS—AS—
Serratus magnus	(both) 0	KS—AS—
Pector. major	(right) 0	KS—AS—
	(left) 0	ASZ—KS—
Triceps	(right) minimum at 7	KSZ>ASZ
	(left) " 6	KSG>ASZ
Intrinsics of hand	0	KS—AS—



*Measurements of Limbs.—*

Right leg, five inches below knee,  $9\frac{1}{4}$  ins. Left,  $8\frac{7}{8}$  ins.

" thigh, six " above "  $13\frac{3}{4}$  " "  $13\frac{3}{8}$  "

" forearm, five " below elbow,  $5\frac{1}{2}$  " "  $5\frac{3}{4}$  "

" arm, four " above "  $7\frac{1}{4}$  " "  $6\frac{1}{2}$  "

*Tactile Sensibility.*—Least distances at which two points could be separately distinguished.

Palmar surface of ungual phalanx, right index finger 1 c.m.

" " " " left " " 2 c.m.

" " " hand, centre—right 3 c.m.

" " " " left 4 c.m.

Front of forearms and legs. Not distinguished at 10 c.m.

Plantar surface of great toe. " " " 2 c.m.

" " " foot. Not distinguished at any distance.

Dorsum of foot. Doubtful, even at extremes.

Abdomen. Doubtful, could hardly recognize one point.

It should have been mentioned that for some eighteen months before admission he had suffered from flying pains about the heart. Though no lesion of this organ was to be detected on admission, six months later a well-marked aortic bruit had developed.

*Autopsy.—Cranium and Contents.*—Skull bones thin and soft. Dura mater adherent slightly in frontal region. Old arachnoid cyst over left hemisphere between longitudinal fissure and Sylvian, ascending frontal and intraparietal sulcus. At thickest point 2.5 m.m.; non-adherent. No changes in brain, macroscopically, save those common to senility; no atheroma of vessels, and merely ordinary abnormalities in size and arrangement of same. Optic nerves thin, and of greyish tinge.

*Trunk Viscera.—Heart.*—Hypertrophy of left ventricle. Thickening of mitral flaps, slight; of aortic, considerable. Advanced atheroma of first part of aorta.

*Liver.*—Distinctly nutmeg.

*Kidneys.*—Cirrhosed.

*Microscopical Examination of the Brain Cortex.*—Sections cut on freezing microtome and stained with aniline blue black.—Ganglionic Layer.—Motor Area.—The large motor cells are nearly universally swollen and globose; their protoplasm is faintly and patchily stained, the nuclei scarcely, or not at all, perceptible. Some have hardly any discernible limiting boundary, and pale granular material or pigment is alone seen representing the protoplasm. Very seldom is any apex process present; more often the basal and lateral remain, but indistinct and stunted; some cells show no sign of extensions except in a fringed or shreddy outline. Others are mapped out by a nearly complete encircling chain of nuclei.

*Pyramidal Cell Layer.*—To a very much less degree these foregoing changes are seen in the pyramidal cells of the third layer.

The main features are the pallor and indefiniteness of both cells and nuclei, the scarce-met apex processes, the faint granular appearance of the protoplasm, and the patchy staining of the matrix.

*First Layer.*—A few “scavenger” elements are here seen; some seem to have suffered degenerative change. There are also colloid bodies present.

The spindle cell layer is very little marked, but few of the normal shaped elements are notable, the cells by their ragged outline and imperfect staining being not readily distinguishable from the shreddy, irregular-looking connective tissue cells found here and in white matter.

These preceding changes are limited to the ascending frontal gyrus. The gyri adjacent show only the features of senile brains. A greater proportion of “scavenger” elements is found in the peripheral layers of these gyri, however.

*Spinal Cord.*—This is much shrunken, especially in the lumbar segment, and degeneration in the posterior columns is easily perceptible. The pia is somewhat thickened, and its vessels engorged in the lowest lumbar region.

*Microscopical Examination.*—*Lower Sacral Region and Filum Terminale.*—The cord with the surrounding bundles of nerves, preserved *in situ*, is comprised in the sections from this region. The nerves lying around the anterior fourth of the circumference are healthy for the most part; two show a little increase of connective tissue only, the nerve tubules remaining clear and well-defined. Nearly the entirety of those encircling the posterior three-fourths of the same are diseased. Thus in Weigert-Pal stained specimens the sections of nerve bundles leave the yellow coloration almost unrelieved by the purplish dotting of unmolested tubules; with the aniline dye, the bundles are deeply and diffusely blue-stained, and have a somewhat mosaic appearance from the coarse white septa of fibrous tissue traversing the field in close meshwork, in the spaces of which can be seen many shrivelled nerve fibres, almost unrecognizable. *Vide illustration.*

At the levels where grey and white matter are first clearly defined the posterior columns are evidently diseased, being shrunken, over-stained, their tubules atrophied, medullary sheaths deep-dyed; hardly any trace of the normal appearances remain. The postero-lateral zones have by no means escaped degeneration; the tubules look compressed, small, and ill-defined. There is, however, no diffuse staining. The pia mater around the cord is much thickened and very dense.

At sites where in healthy sections a few well-formed nerve cells are found in the anterior cornua no trace of the same is observable.

*Lumbar Region.*—The entirety of the posterior columns is diseased; most markedly at the periphery. All the nerve fibres

are atrophied, closely-packed, and misshapen, but there is no notable increase of connective tissue, either cell or fibre-form. Towards the circumference of cord the staining is deeper, the atrophy extreme, the texture looser, these appearances being continued for a short distance into the lateral columns. The rest of the white columns, although the anterior quadrant has escaped the most, have a greyish tinge; the detail is indistinct, the fibres appearing huddled together and the larger ones much lessened in number; all lack defined outline and clear, white medullary sheath. To a considerable extent the intervals between the larger and healthier fibres are occupied by deep-stained punctate tissue and close-placed, atrophied nerve tubules. One lateral column shows just outside the anterior horn an area marked out by a free riddling with thick-walled vessel orifices; but no obvious focal change in the tissues immediately adjacent to the vessels is seen. The pia all round the cord is thickened, but especially where investing the posterior and postero-lateral columns. It is pretty freely infiltrated with leucocytes, and its vessels are large and their coats thickened.

*Anterior Cornua.*—There are hardly any even approximately healthy nerve cells to be seen. At the most but two or three of these can be found in each cornu; the remaining cells, where there are any, are stunted, shrivelled, and much pigmented; whilst in a large number mere masses of pigment are the representatives of normal cells. The sheaves of emergent nerves are much thinned and deep-stained.

*Dorsal Region.*—The posterior columns are as in the lumbar cord, except that a far larger number of vessel-orifices exist in them, very free perforation being present.

The anterior columns show a plain but slight increase of connective tissue, and so do the lateral, mainly outside the anterior horns, and more markedly on one side than the other. The nerve fibres in the peripheral part of the anterior zones are very much wasted, and the field here consists of scattered larger tubules, with intervening deep-stained punctate tissue. The intensity of these changes gradually lessens as the zones are embraced by the anterior horns, but the aspect is never normal. In the crossed pyramidal tracts the appearances are about the same. The entire marginal zone shows notable absence of nerve tubules and excess of connective tissue. No cells are seen in the anterior cornua; several sections were examined. The cells in Clarke's column are frequently hardly distinguishable as such.

*Cervical Region.*—Disease in the white columns is less marked, and decreases with the higher levels of section. The tracts of Goll are the most affected, especially at their periphery; changes are also marked along the course of the entering posterior nerve roots. The lateral and anterior columns nearly escape, the margins being the most diseased parts.

Throughout the cervical cord there is no decrease in the amount of cell-destruction. Rarely is an approximately healthy cell seen. So far have they disappeared that it would be almost impossible to fix on any special group in the cornua as having suffered the most. This, too, holds good as regards the lumbar region.

The degeneration in the posterior columns of the cord is yet plainly evident in their upward continuations in the medulla. No noticeable alteration in the cells of the clavate and cuneate nuclei is seen.

The cells of the hypoglossal nuclei, whilst not fewer in number than normal, are pretty generally small, with few branches, pale or filled with yellow granules. No change can be positively said to exist in those of the glosso-pharyngeal and vagal nuclei. The oculo-motor nuclei and emergent nerves appear quite normal. No obvious disease detected in any part of the mesencephalon other than that already noted.

*Peripheral Nerves.*—Transverse sections of these were stained in aniline blue-black and logwood, singly and conjoined.

*Sciatic Nerve.*—This is greatly reduced in size, its area equalling, roughly, about a third of that of a healthy nerve. Under the low power it is evident that the whole nerve is remarkably shrunken. Even the largest bundles, many of which, however, preserve a fairly normal contour, are smaller than the healthy average, whilst the least sized are found as hardly recognizable groups of closely-packed and wasted nerves lying in a wide expanse of fatty tissue. But these bundle-remnants are only few, the more general condition being a universal atrophy of all portions of the neurine structure to a more or less equal extent. In aniline-stained sections the individual nerve tubules show, as a rule, badly; so much are they wasted as in many instances to present a merely granular aspect. In most the axes are distinguishable. Under high amplification the larger tubules all appear to have lost their normal contour, assuming a sharp-angled pyriform shape; their medulla is thin and yellow-stained, their outer investment unusually clear and defined.

With aniline-logwood stain, the nerve structure proper is almost obscured by the number of connective tissue nuclei, whilst the connective tissue itself is everywhere in striking disproportion to the amount of nerve tissue. The epi- and peri-neurium are notably thickened, and in some parts thick wavy bundles penetrate from the circumference across the nerve, quite obscuring the nerve fibres. In Weigert-stained specimens there are seen patches in which no differentiation of medullary sheath is seen at all, and for the most part the dark rings representing this are narrow and not so well marked as they should be.

*Anterior Crural Nerves.*—In these appearances vary somewhat from those in the nerve last described. Though the area of the nerve is only diminished to the extent of about one-third, yet the



neurine structure proper is even more wanting, the greater portion of the sectional area being composed of fat. The nerve microscopically has the characters of extreme fatty degeneration met with in some general paralytics. Magnified by 50, a few nerve bundles are seen scattered amidst a quantity of adipose tissue. Two of these bundles are of fair size, and appear free, or nearly so, from disease; three more are much reduced in size, the fibres numerously atrophied and the endoneurium greatly thickened. As in the sciatics, the connective tissue nuclei are abundant. The rest of the apparent nerve structure consists of a few tiny bundles, hardly recognizable as consisting of nerves, with very minute fibres and excess of connective tissue fibre and nuclei, as in the larger groupings. Here and there are small isolated areas of wavy connective replacing nerve tissue. *Vide illustration.*

The other nerves examined were the median, ulnar, radial, and musculo-spiral. Of these the two first were the most degenerated.

The median shows an extreme degree of compression; no separate bundles are discernible, but every portion of the nerve is traversed by coarse fasciculi of connective tissue, whilst there is a complete network of hypertrophied connective tissue fibres enclosing areas containing one or few nerve tubules. The latter are not of rounded contour, but angular or pyriform, occasionally separated by widish spaces occupied only by nucleated connective tissue.

The ulnar nerve, in general appearance, resembles the anterior crural, the main portion of its tissue being adipose, in which lie isolated bundles of nerve tubules, like to those in the median.

In the musculo-spiral and radial the nerve fibres are shrunk, angular, and separated by areas of nucleated connective tissue, which in places usurp to no small extent the position of the nerves.

In the radial there is much adipose tissue between the nerve bundles, and in it lie two remnants of the latter; one of these bundles is of large size, and consists in great part of dense nucleated connective tissue, with comparatively few and isolated nerve tubules.

Portions of muscle taken from the extensors and flexors of forearm, the short flexor and adductor of thumb, all showed similar changes, viz., atrophy of the muscle fibre, with granular disintegration and infiltration of the interstitial areolar tissue with fat. The greater part of the muscle is composed of densely nucleated connective tissue.

*Remarks.*—There are some details missing in the history of this case which would have been of value in determining the origin and march of the nerve lesions found. It is not evident at what period sensory disturbances were first noted, particularly as regards anæsthesia. Presuming, however, in default of positive statements to the contrary, that these

sense-disorders did not appear until a late date in the course of the symptoms, it seems to me that the patient's first attack was one of anterior polio-myelitis, more or less acute, and partially recovered from, the alternative diagnosis seeming to me to have been neuritic paraplegia. A slowly-progressive form of anterior polio-myelitis would account for the subsequent symptoms, both in upper and lower limbs, in conjunction, that is, with multiple neuritis, which was undoubtedly present on his admission to the asylum. It appears as if the severe crushing of the hand acted as an exciting cause on the development of the disease in the upper extremities. I should imagine the peripheral neuritis to have been secondary to cornual changes as the atrophy of the limbs proceeded indiscriminately, and, it is believed, independently (at any rate, at the commencement) of sensory disturbances.

What part the affection of the posterior columns of the cord played in the symptoms is doubtful in the absence of history dealing with (*a*) the date of establishment of anæsthesia, or (*b*) its being preceded by hyperæsthesia. At the time of patient's admission, changes in them would probably have been present, as there was conjoined analgesia and anæsthesia, notwithstanding multiple neuritis was existent.

The pathological appearances were for the most part those of general parenchymatous atrophy only. No indication of a focal or disseminated myelitis was observed. Nor can the origin of the changes be elucidated; it may be noted, however, that in diseases of the nerve-roots of the cauda equina there is said to be constant degeneration of the posterior median columns. As regards Burdach's zones, it will be remembered that disease was especially marked in the root zones, and that the entering nerve fasciculi were markedly degenerated. The lesions in the lateral columns were not of much degree, but of rather diffuse distribution, and extended into mixed and anterior zones. An upward continuation of these changes in the pyramids of the medulla was not recognized. Considering that the appearances mainly indicated atrophy, mere functional disuse may have accounted in no small extent for the changes found.

I regret an oversight in not preserving the optic nerves for minute examination. Their degeneration seemed in accord with that of the peripheral nervous system.

There are two features of interest on the clinical side of

the case, viz., the long interval between the affection of the right and left upper limbs, and the occurrence of valvular heart disease rather rapidly (?syphilitic, as supposed in certain cases where occurring in conjunction with tabes dorsalis).

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*Cases of Insanity in General Practice.* By A. H. NEWTH, M.D.,  
Haywards Heath.

It is very possible that if medical men were asked to give an account of cases of insanity treated by them in general practice many, especially those who have given attention to the subject, would be able to show some good results. As, however, they do not have the accessories for successful treatment in every case, such as specially-trained nurses, the quietude and repose of asylum life, freedom from the worries of friends and relatives who, from want of judgment and tact, often do much harm, and from whom it is impossible in private life to isolate the patient entirely, physicians in general practice cannot be expected to be able to do so much as those engaged in asylums.

In order to show what may be done in this respect, I have collected a few cases, amongst many, that have come under my care. No attempt has been made at classification, nor to give details of the history of the cases; they have been taken just as they suggest themselves.

Some years ago a well-known revivalist held a camp-meeting in this neighbourhood, with the result that many persons became insane and were taken to the asylum. Some of them came under my care, but not one of these was sent there.

In one instance I found the patient in an ecstatic state, almost entirely oblivious to all around her, gazing earnestly forwards as if at some distant object. She kept exclaiming, "I see a bright and shining light; the heavens are opened; the Son of Man is standing before me; He calls me; I must go to Him," etc. She would then endeavour to rush forwards as if to fly away into the clouds. She neglected her household duties, would not take food, was sleepless and restless. When I was called to see her she did not notice my presence, but went on with her delusive ravings. Waiting awhile for her to calm, I went up to her, and, taking her by the shoulders, gave her a good shaking, and said, "Mrs. C—, you are ill; your liver is out of order; you must attend to yourself." She came to herself for a time, awaking, as it were, out of a dream, and answered questions rationally. I persuaded her to

take a mild mercurial purge, and prescribed nitro-hydrochloric acid and gentian, for I noticed a yellowish tinge of the conjunctiva, and she appeared sallow and unhealthy-looking. Under this treatment she soon recovered, and has had no relapse.

A short time after I was requested to see another person who had been attending these revival meetings.

She was a poor miserable creature, with a dirty, unhealthy complexion, sunken eyes, dark rims round them, cold, clammy hands, pale fissured tongue, and other evidences of an anæmic state, with disorder of the digestive organs. She was exceedingly depressed, constantly bewailing her lost condition, saying she "had fallen from grace," that "there was no hope for her in this world nor the next," etc. She was strongly suicidal, had made several attempts to drown herself, and it was necessary to have her constantly watched to prevent her doing herself harm. This was a case that seemed to call for immediate removal to the asylum, for, as a rule, I consider it is desirable that if a person is dangerous to himself or others no time ought to be lost in placing him under restraint. However, as there were at least two sensible persons who could look after her, I determined to try what medical treatment could do before taking so serious a step. There was considerable mental agitation, with physical weakness, headache, and derangement of the digestive organs. I therefore prescribed a mixture containing small doses of bromide, with sodium bicarbonate, salvolatile, and a little bitter infusion, and a blue pill and seidlitz powder, with liberal diet frequently administered. The effects of this simple treatment were almost magical to the friends. Her morbid fears disappeared in a very short time, her suicidal impulse passed off, and she became quiet and contented; a simple tonic completed the cure.

There has been no relapse in her case. Some time after Mrs. P— wrote me a very nice, sensible letter of thanks. These are very ordinary cases, and the treatment seemed simple enough; but I am firmly persuaded that if powerful sedatives had been given, the already weakened brain, excited from deprivation of proper blood supply, would have been still further weakened by them, and these patients would have probably been ill for some time.

About this time I was called up at night to see a Mrs. B—, who was delirious and unmanageable. She had been under my care for catarrhal fever and anæmia, was naturally of a melancholic frame of mind, and, having lately lost her husband, was depressed in consequence, and also anxious as to her future possibilities of earning a livelihood. When I saw her she was in a semi-unconscious state, excited, restless, and unreasonable. She was full of perverted religious delusions, constantly raving about the blood of



Christ. "I cannot see it," she cried. "I want it applied to me; I have been a great sinner, and I want to see my sins forgiven," etc. She would not attend to anything that was said to her.

I thought I would attempt something in the way of argument. Speaking firmly and decidedly to her, though unaware whether she could really appreciate what I said, I pointed out how she might derive all the benefits of the atonement without actually seeing the means used or even understanding them; giving her as an illustration how medicine might be given to her without her seeing it or knowing what it was, and yet would do good. I daresay my theology was not quite orthodox, but it had the desired effect. She became calmer, and after a quiet night's rest, obtained by a mild opiate, was tolerably cheerful and quite rational in the morning, referring to her delirium and thanking me for what I had said to her. She has continued clear in mind now for many years; is, in fact, better in health than she has been for some time, and though she occasionally suffers from severe headaches, is able to conduct a large infant school.

In treating cases with strong mental delusions, it is always well to avoid making light of them or speaking of them with levity. To the patient these delusions are a terrible reality, and the arguments that must be used ought to be such that the person can himself turn them to account.

Another case of religious mania, so called, came under my care about this time, which was to a great extent influenced by reasoning. She was a young lady, aged 20, residing in London, of somewhat phthisical tendency, though there was no history of phthisis in the family. Her father and grandfather had both committed suicide, and her mother was rather weak-minded; she had a sister who was congenitally deformed. She was homicidal, had attempted to throw a child of a friend with whom she was out walking into the canal, but the attempt was frustrated by some passer-by at the time. She had also been found wandering along the banks of a canal as if meditating suicide, which it was feared she might commit. She had been attending some exciting religious meetings, had gone long distances to attend them, and had neglected her meals in consequence. She was in low, feeble physical health, but with no particular organic disease, little appetite, torpid state of bowels, and deficient menstruation.

Two or three medical practitioners had been consulted, who all told her that she had upset her mind by attending the religious meetings, that she must give up going to them, that they were all nonsense, etc., and advising, instead, attending theatricals, balls, concerts, entertainments, and so on. This

levity in respect to the religious services which she had attended, and in which she felt deep interest, only shocked her and made her more depressed. I carefully avoided saying anything myself against them, on the contrary, I said they were very good, and quite sympathized with her in the interest she took in them. But at the same time I told her she had upset herself by going so long without proper food, walking so far, and being present in hot, imperfectly ventilated rooms.

She acknowledged the uncontrollable impulse she had either to drown herself or her friend's child, and cried bitterly at the thought of her wickedness. This, I pointed out, was the result of her physical weakness, and that unless she did what I told her she would have either to go to prison or to an asylum. I advised her, for a time at least, to give up attending religious meetings, to take more food and rest, and prescribed a ferruginous tonic, with aloetic purgatives, as there was some menstrual irregularity. She seemed to appreciate my sympathy thoroughly, and following my advice and treatment, rapidly improved in health and became cheerful and happy, and has continued in good health, both mentally and physically, for some years.

The strong hereditary tendency to insanity was a most unfavourable factor in her case, and I am strongly persuaded that, had she not been induced to follow my advice in this early stage of her malady, she would have committed either suicide or homicide, or have become hopelessly insane.

Mrs. V., a lady of dark-olive complexion, with one child, had resided in India some time, was now separated from her husband. For some time she had been eccentric in her manner and excitable, giving way to passion and taking fanciful dislike to persons. In the middle of the night she was suddenly seized with a violent attack of mania. The friends thinking she was possessed with the devil had sent for the parish priest, who, however, declined to have anything to do with her, and advised them to send for me. I prescribed some chloral and bromide which produced sleep and quietude. On examining her in the morning I discovered that she had an ulceration of the cervix uteri, which I treated successfully, and the maniacal symptoms ceased. She left the neighbourhood, after a few months, better than she had been for some time, but I entirely lost sight of her and do not know whether she had a relapse or not.

I am strongly inclined to think that there are many cases of insanity due to reflex irritation of the womb or its appendices, which if treated in an early stage might be cured. This special treatment is difficult in asylums, the presence of young unmarried girl attendants, the fact that the assistant medical

officer is himself a single young man and the superintendent is also frequently unmarried, and the morbid feeling and ideas of the patients themselves, make an examination both difficult and unpleasant. So the case is neglected, the brain cells become diseased, and the patient is allowed to drift into an incurable maniac. The following case will show what may be done in this respect:—

Mrs. G., an elderly lady, residing near London, was sent to be under my care. She had been more or less insane for many years and had been placed in an asylum several times. There was an hereditary tendency; her brother committed suicide, and several of the family are or were insane, whilst others are more or less neurotic.

By nature a most gentle, quiet, retiring lady, when she came to me she was violent in her manner, using strong and obscene language. Her restlessness was extreme, she could not be induced to remain still a moment, and was most persistently suicidal. She obstinately refused food, and was brought to the extreme verge of starvation. Her complexion was sallow and unhealthy, her pulse extremely feeble, intermittent and rapid, skin cold and clammy. The treatment of this case was most difficult. She strenuously resisted feeding, spat out all that was put in her mouth, and obstinately refused all medicine. I used the stomach pump several times, but the difficulty and unpleasantness of using it was so great that I gave it up and relied solely on a method I have adopted of artificial feeding, which is simple, safe, and efficacious. Though the lady was constantly asking for her daughters I deemed it better that they should be sent away and the patient left entirely in my care with the nurses.

There was an enormous accumulation of fæces in the rectum and colon, which came away with much difficulty by repeated enemata; the lady fancied she was being delivered of a child. I also found, some little time after she had been under my care, that she had prolapse of the womb; this I relieved and supported, giving appropriate treatment.

Her condition was so precarious that her case seemed utterly hopeless.

After two months' anxious care the lady slowly improved in physical health, and one day suddenly recovered her mental faculties, with the remark, "I have been very ill, have I not?" She did not have the slightest recollection of what had taken place during her illness. Her health, both mentally and physically, rapidly improved, and she went home to her friends better than they had known her for many years.

She has lately, after six years, somewhat relapsed, I understand, but not sufficiently to be placed under special care. It is very

likely that the womb has prolapsed again, but her natural timidity of disposition makes it difficult to treat her for this. The friends have a reluctance in asking me to see her professionally lest it should upset her mentally, though this I consider very unreasonable and injudicious.

In this case the relief of the mental excitement so quickly followed on the reposition of the prolapsus uteri that it seems impossible not to recognize the connection between the irritation it caused and the mental symptoms. There were some domestic anxieties as well probably acting as an exciting cause.

Closely allied to this was a case of recurrent, subacute mania in a lady, residing at Brighton, of about 50 years of age (J. B.). Tall, fine, healthy person, but with somewhat inquisitive, mischief-making propensities, has been repeatedly in various asylums for recurrent mania at intervals of about twelve months. Every time she was affected she had the peculiar delusion that a man came up out of the earth and got into her bowels trying to drag them out. This persistent delusion led me to make inquiries as to whether there might not be some source of irritation to account for this. I found that thirty years previously she had been under treatment for *tania solium*, without, however, any satisfactory result. During a tolerably rational moment I persuaded her to allow me to prescribe for her. So clearing out the bowels with a strong dose of castor oil I gave her a draught containing one drachm of oil of male fern and forty grains of Kamella powder, followed in a few hours by a strong black draught. The result was most satisfactory, and to the lady's intense delight she brought away a worm sixteen yards long, which she carefully measured; the head came away too. After this she recovered mentally and has had no relapse of any kind since, now several years.

I had another case of insanity (A. T.) cured by removal of a tape-worm, who relapsed, after a few years, from its renewal, and again there was immediate relief of the cerebral symptoms on removal of the worm.

(To be continued.)

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*Case of Rupture of the Left Ventricle of the Heart.\** By JOHN BRUCE, M.B., C.M.Ed., Assistant Medical Officer, Crichton Royal Institution, Dumfries.

The patient was a well-built man with florid complexion, 70 years of age. He had been in the Crichton Royal Institution for 18 months as a voluntary patient, and was subject to

\* Read at the Quarterly Meeting of the Medico-Psychological Association held at Edinburgh, Nov. 12th, 1891.



periodic attacks of nervous excitement, during which he was restless, unable to keep still for a moment, had spasmodic movements of the arms and legs, and lost his appetite. When free from excitement he was able to take long walks and never complained of dyspnœa. The action of the heart was usually steady and regular, but towards the end of an attack of excitement it became rapid and feeble. A mitral presystolic murmur had been present for some years. He died suddenly one morning during an attack of excitement. There was a history of gout.

*Post-mortem examination.*—There was marked venous congestion of the face and neck.

*Thorax.*—The costal cartilages were ossified. On reflecting the sternum the pericardium was seen to be much distended, and on opening it was found to contain 14 ounces of slightly stained serum, and  $16\frac{1}{2}$  ounces of blood clot, dark in colour. There was no evidence of pericarditis.

The heart was enlarged and weighed 18 ounces. There was a thick deposit of fat at the base of the heart, in the inter-ventricular grooves, and on the posterior aspect of the right border. The muscular fibre was pale and flabby, being in a state of fatty degeneration. The walls of the ventricles were of normal thickness, but the auricular walls were thin, especially that of the right auricle. All the cavities of the heart were enlarged; the left ventricle was empty; the right ventricle and both auricles were filled with blood clots. One inch to the left side of the septum and two inches from the apex there was a rupture of the anterior wall of the left ventricle. The orifice was of a linear form (resembling a cut with a knife), one inch in length, and ran almost parallel to the muscular fibres.

The rupture was divided into two unequal parts by a narrow band of muscular fibre running obliquely across it, the lower part being one-fourth the size of the upper. At the point ruptured there was a local dilatation and thinning of the muscular wall. The aorta was thickened and atheromatous; the ascending part of the arch was dilated.

The aortic and pulmonary valves were competent. The mitral valve was slightly incompetent and the orifice was narrowed.

The lungs were healthy.

The liver was enlarged and cirrhotic. The other abdominal organs were healthy.

*A Case of Rupture of the Heart occurring in a Melancholiac.*

By VINCENT NASH, L.R.C.S.I., Assistant Medical Officer,  
Richmond Asylum, Dublin.

Through the kindness of Dr. Conolly Norman, I am enabled to report the following case of spontaneous cardiac rupture.

A.H., age 64, was admitted to the Richmond Asylum May 22nd, 1888. She was a widow in decent circumstances, who had borne several healthy children. She had been treated to recovery for two attacks of melancholia in an asylum in England.

On admission it is noted in the case book: Patient very depressed, replies slowly, says that she wishes she was dead, that life is a burden to her. At times she refuses to speak; lungs normal; heart, weak action.

May 27th.—Patient last night attempted to commit suicide by cutting a vein in her arm with a piece of glass, which she had concealed for the purpose. The night nurse's attention was drawn to her by hearing the dropping of the blood on the floor.

June 25th.—No improvement in mental state; has had one or two attacks of syncope lately; she is full of delusions, and imagines that she has some dreadful disease which she will impart to the other patients if she is not removed to some place where she will be alone. She continued pretty much in this state until she came under my observation in March, 1890.

She was then greatly emaciated, with face pale and very anxious looking; skin dry, rough, and wrinkled; appetite fair; bowels confined; slept fairly well at night. The lungs, with the exception of weakened breath sounds at the right apex, were healthy; heart sounds feeble, slight blowing mitral systolic murmur. She complained occasionally of pain over the region of the heart, which sometimes shot down the left arm to the finger tips. There was nothing to suggest that she at any time had suffered from syphilis. She was constantly moaning, wringing her hands, bewailing her fate and the destruction she had brought on herself and the asylum. She implored everybody she met to put an end to her existence, as she was a constant source of danger, not only to the institution, but to the world at large. "We are all lost, the whole world is destroyed; don't come near me or you will get the dreadful disease. It is eating us all up; we are a mass of sores, and I am the cause of it all. Give me a dose of chloroform and let me die." She remained in this condition until October 1st, 1890, when she was attacked with acute pneumonia of the left base, which ran an ordinary course until the morning of the seventh day, when she was suddenly attacked with extreme dyspnœa; her face became ashy pale and covered with a cold sweat.

She sat up in bed gasping for breath, throwing her arms about. Extremities cold; the temperature which an hour before had been  $100^{\circ}$ , was now fallen to  $98^{\circ}$ . Pulse very weak and irregular; heart sounds scarcely audible. She gradually recovered from this state, and in the course of three or four hours was quite as well as she had been before the attack. Her pulse was fairly strong and regular; the heart sounds were still very weak and muffled, and I was unable to detect the mitral murmur which she had before the seizure. She stated that during the attack she suffered intense pain over the region of the heart and a dreadful sense of suffocation. She slept very little that night, and had to sit up in bed, as she complained of shortness of breath and sudden short attacks of pain in the chest. She continued to improve in every way until the morning of the ninth day, when, about 48 hours after the above seizure, while turning in bed, she gave a loud shriek, attempted to sit up, and fell back dead.

Post-mortem examination 10 hours after death.—The pericardium was found distended with partially clotted blood, which concealed the heart from view; the heart itself was slightly larger than natural, was pale and flabby; the surface of the right ventricle had a thick coating of fat, and its walls were thinner than normal. Tricuspid orifice and valves healthy; the pulmonary artery and valves were also quite healthy. The left ventricle had a good deal of fat on its surface, particularly along its left border and towards the apex. Its walls were somewhat atrophied, tore easily, and were of a pale yellow colour; towards the apex they became thinner and thinner, and at a point a little posterior to the actual apex there was a rent about a quarter inch long. Its edges were irregular, ragged, and everted. The muscular tissue for about the size of a two shilling piece around the rupture was soft, ecchymosed, and contained blood clots between its layers. The internal orifice of the perforation was partially closed by a blood clot, which extended backwards for about three-quarters of an inch into the cavity of the ventricle.

The anterior segment of the mitral valve was healthy; about the centre of the posterior segment there was a well-marked calcareous nodule. The auriculo-ventricular orifice was slightly contracted. The aortic valves were quite healthy, and the aorta, with the exception of one or two atheromatous patches, was healthy.

The base of the left lung was in a state of red hepatization; right lung healthy; liver, kidneys and spleen, slightly congested, but otherwise normal. Microscopic examination showed an advanced state of fatty degeneration of the muscular fibres of the heart. Had it not been for the occurrence of pneumonia, which threw an extra strain on a heart already weakened by degeneration, it is not unlikely that the rupture would not have taken place until a considerably later period.

My principal reason in bringing this case before the Association is not so much on account of the comparative rarity of the lesion, as on account of its further example of a case in which the patient survived for a lengthened period after rupture of the heart had undoubtedly taken place.

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## OCCASIONAL NOTES OF THE QUARTER.

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### *Report on Irish Lunacy Legislation.\**

This Report (for we take two Reports as practically one), signed by Sir Arthur Mitchell, Mr. R. W. A. Holmes, and Dr. F. F. MacCabe, is one of very exceptional interest. The time had come when it was the duty of the Lord Lieutenant to grasp the situation in Ireland in regard to the lunatic asylums and to obtain the best authoritative advice as to their condition and the reforms necessary to render them a credit to the Lunacy Department of that country.

The points of inquiry embraced are—the questions whether the inspection of the institutions is adequate to their requirements; whether the powers of the lunacy inspectors ought to be transferred to the Local Government Board; whether, if so, the work of inspection should be distributed among the general medical inspectors of the Board, or whether it should be assigned to inspectors with no other duties; and whether any other amendments of the Irish Lunacy Laws are desirable.

*À l'outrance*, the members of this Commission unhesitatingly report that fresh legislation is “beyond question necessary.” Codification of the lunacy statutes is required. Far beyond this, however, it is requisite that existing provisions should in some instances be abolished, and others should be introduced. At the bottom of the difficulties by which the provision for the insane and their treatment are provided for, is the fact that the early Lunacy Laws, still in force, precede the Poor Law Acts, differing in this from the order of legislation in England and Scotland. It appears to be due to this, that the poor rate in Ireland does not embrace the necessities of the insane poor. Their maintenance comes out of the county cess, the local tax in operation when the lunacy

\* First and Second Reports of the Committee appointed by the Lord Lieutenant of Ireland on Lunacy Administration (Ireland), 1891. Edinburgh, 1891.



laws were placed on the statute book. Hence, technically speaking, there are no *pauper lunatics* in Ireland. It is true that many are in workhouses supported out of the poor rate, but they are not registered lunatics.

The opinion is expressed that although the transference of the powers of the lunacy inspectors to the Local Government Board would be an improvement, *the creation of a separate lunacy department is that which is really necessary.* We should have deeply regretted, had anything short of this fundamental change been recommended. The transference might, indeed, have been an improvement on the present muddle, but it would have been infinitely worse than the system which obtains in Great Britain. An uncertain sound on this most important preliminary question would have gone far to render the report before us nugatory. That this recommendation will be ultimately adopted we cannot for a moment doubt.

It is very properly pointed out that the duties of inspection are not restricted to the class of patients paid for by the State, but extend over the insane of the middle and higher classes. It would be a waste of time to give reasons why there is no valid argument against this course on the ground that there would be an overlapping and consequent friction between the two separate jurisdictions. Whether there might not be a saving of expense is another question, but granting that such would be the case, the argument must be unhesitatingly dismissed if, as we maintain, the present unsatisfactory condition of Irish asylums calls loudly for the creation of a separate lunacy department. It is proposed, however, in view of the time that must elapse before legislation can effect this desirable change, or even the transference to the Local Government Board, were that desirable, to revive, as a temporary expedient, the Board of Control and Correspondence, the provision for which is, it appears, still in force under the Statute 57 Geo. III., cap. 106.

It is stated that this Board of Control did not originally concern themselves about the *management* of asylums, but only in the erection of buildings, etc. The function which was not exercised by this Board was undertaken by two medical inspectors of lunatics, added to it about 1860. The revival (without a separate Act of Parliament) of a modified and strengthened Board of Control is therefore recommended, but only as a makeshift till the entirely separate Lunacy Board is created.

It is not necessary for us to enter into many details included in the report before us—details referring to workhouses, some of which might be converted into provincial asylums, and to the transference of pauper lunatics from workhouses to private dwellings. We may, however, state that the recommendations of the Committee include the following points:—

It is proposed that the Board should consist of seven members, or if that number is considered too large, five; two of the members to be medical men, the present inspectors of lunatics being appointed. The other members are to be unpaid and not medical.

When this Board is created the code of law under which the Privy Council and the Board of Control intervene in the formation of districts, the building of asylums, the purchase of sites, and the control and the direction of asylums would be repealed.

The authors of these reports naturally indicate as a guide the way in which the Scotch Board of Lunacy proceeds. It is, however, pointed out that it would not be desirable to adopt all the provisions of the Scotch law.

It is recommended that power should be given for the erection of a succursal asylum by any district or combination of districts, these asylums to be cheaply built and adapted to the wants of the incurable and tranquil class of patients. As there would be a danger of unsuitable cases being admitted, no application for a reception order ought to be made without the sanction of the General Board, this approval being submitted to the magistrate with the usual statutory form required on admission. It appears that an Act of Parliament already provided for this (8-9 Vic., cap. 107, sec. 15, 1845), but it was never carried into practice. The adoption of this course is calculated to make the district asylums assume more of an hospital character, fitted for the curable class.

We have already referred to workhouses. It is recommended that the Board of Governors of any district asylum should be permitted to purchase an unoccupied workhouse and use it for lunatics not requiring medical treatment and not dangerous. They would stand on the same footing as the succursal asylum above mentioned.

The utilization of portions of occupied workhouses is also recognized as possible, but not strongly recommended. Such licensed lunatic wards must be subject to the same

rules as to inspection, admission, etc., as are district, succursal, and private asylums.

We regret, but are not surprised to find, that the condition of the great mass of lunatics in Irish workhouses "is highly unsatisfactory." Most of them, it must be noted, "are not allowed to discharge themselves, or to quit the workhouse as the ordinary inmates are allowed to do," and this without legal authority. It is very properly recommended by this report that it should be made illegal to keep insane persons in any workhouse which does not possess wards licensed for their reception. It is shown, as pointed out, that "the retention of lunatics, transferred to workhouses, on the asylum books is an evasive way of obtaining participation in the Government grant towards the maintenance of the insane poor." Altogether the present condition of things creates surprise that it should have been so long permitted.

It was to be expected that this report should contain strong recommendations in regard to the insane who do not require confinement in asylums and can be provided for elsewhere. We have no means of knowing how far the boarding-out system will be likely to answer as in Scotland.

A distinction is very properly made between private lunatics and lunatics under private care, maintained out of the rates, whether residing with relatives or strangers. The former class do not need to be brought under the supervision of the General Board unless they are kept for profit, or whether kept for profit or not, have been insane for upwards of a year, and are subjected to compulsory confinement, restraint, cruel treatment, or gross neglect. The latter class (the insane poor in private dwellings) must be brought under such supervision.

Private patients, even if kept for profit, should not come under the Board's jurisdiction if a medical man certifies that it is desirable to place him temporarily in a specified house. Certainly this portion of Scotch law is a very remarkable one, and we should like to see it extended not only to Ireland, but to England. This, however, is a hopeless wish, being altogether opposed to the recent mischievous restrictive legislation under which we labour. The report before us has the courage to propose that this temporary residence, free from the control of the Board, should be extended from six months, as in Scotland, to the whole year.

A point on which the reporters lay great stress, and very properly, is that the procedure for authorizing the admission

and detention of lunatics should be identical for all classes—for the destitute and those in comfortable circumstances.

With regard to the introduction of the magistrate as authorizing the admission and detention of patients into asylums, the report is favourable to this course. It is recognized, however, that this can be carried out sufficiently without the cumbrous clauses which disfigure the English Act, which is a clumsy imitation of the law of Scotland. Simplicity and breadth ought to characterise fresh Irish legislation, and in these respects even the latter may be improved upon.

An urgency certificate without a magisterial order must be provided for in the contemplated Irish legislation.

The admission of voluntary patients into asylums is of course recommended, as is also permission for the manager of a licensed house to receive as a boarder any relative or friend of a patient as long as the assent of the Board is obtained. We should have thought that such assent was totally unnecessary.

In regard to dangerous lunatics and those who are neglected, the report recommends that provisions similar to those in force in England and Scotland should be carried out for the future in Ireland.

At the present time in Ireland medical superintendents are appointed by the Lord Lieutenant. We recommend that the General Board should have the power of vetoing the appointment of superintendents, however rarely it should be of exercising it. The position of the superintendent is clearly and properly laid down. The asylum having 200 patients should be provided with one resident assistant medical officer, and two or more according to the size of the institution.

Full power should be given as recommended to the General Board to send medical men to examine into and report upon patients in asylums where it appears to be desirable.

Access to patients should not be discouraged, although the medical superintendent should be empowered to refuse such visits, his reason being forwarded to the General Board.

On the irritating question of what letters are to be sent and what are to be detained by the superintendent, it is recommended that he should exercise his discretion unless the letters are addressed to certain official persons enumerated.

As to restraint and seclusion, the recommendation is delightfully simple and elastic—the General Board “should be empowered to do what seems to be desirable.”



Our space will not allow of entering into further details in regard to the provisions which ought, in the opinion of the reporters, to form part of the proposed new Irish Lunacy Law. They appear to us to be judicious and to be guided by an honest attempt to adopt what is good in the English and Scotch Lunacy Acts, while avoiding their defects. We have no doubt whatever that if the recommendations of the reports before us are carried out, the future condition of the insane in Ireland, within and without the walls of asylums, will be vastly improved. There is no denying that a thorough reform has for long been necessary. We confidently look to a brighter record than that of the past. It may be that the change has already commenced, and "the Reports of the Committee appointed by the Lord Lieutenant of Ireland on Lunacy Administration" (consisting of the competent gentlemen mentioned at the commencement of this review) will, we hope, exert a beneficial influence in the regeneration of Irish asylums.\* May this report not follow its many predecessors to the Vice-regal waste-paper basket! Here is the weak link in the chain, we are sorry to say. Of what advantage is the best advice, if it is not taken?

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#### *Important Lunacy Action.*

In a recent trial a verdict was given against a medical man for writing a certificate to the effect that the plaintiff was insane. The medical man in question pleaded that the words written were not a certificate, but were for the information of the relieving officer, and given to him to enable him to take the steps provided for such cases under section 20 of the new Lunacy Act.

In 1889 the plaintiff had attempted suicide, and had been confined in an asylum. He was, however, discharged recovered after some months' treatment. In November, 1890, a quarrel had arisen between his wife and himself, and the wife applied to the defendant, who wrote the words complained of, viz., that the plaintiff was a person of unsound mind and dangerous to those about him. On receipt of this document the relieving officer, aided by two police officers, removed the plaintiff to

\* Although the admissions into district asylums have steadily risen during the decade 1879-1888, and this in spite of diminishing population, the Committee point out that the conclusion of there being an increased liability to mental disease would be unwarrantable. Emigration causes a larger proportion of *defective* persons to the population of the country, and, along with other circumstances, explains the apparent increase.

the infirmary on a Saturday, and on the following Monday he was taken before a magistrate, who, after examining him, refused to sign an order for his detention, and he was immediately liberated. In the course of cross-examination he declared that his family evinced feelings of hostility towards him, and that it was untrue that he had threatened the members of his family.

The defence raised was to the effect that from the defendant's previous knowledge of the case, and the wife's statement, he had written the certificate to enable the relieving officer to set on foot the necessary inquiry with regard to the plaintiff's state of mind, although he admitted it would have been more desirable that he should have seen the plaintiff beforehand; but knowing how important it was that such cases should be dealt with promptly he had given the certificate without seeing him, in order to save time.

Mr. Justice Cave, in summing up, put the following points to the jury:—1st. The action for libel must fail because the occasion was privileged, and no malice was proved; that the proceeding was under the Lunacy Act, and the question was whether it was necessary for the safety of the public or for the welfare of the plaintiff that he should be detained as a person of unsound mind, and if so the verdict would be for the defendant. Then, again, did the defendant act in good faith and with reasonable care? If he did not the verdict would be for the plaintiff.

The jury found for the plaintiff, and gave him £25 damages. There can be no doubt the jury were influenced by the fact that the defendant had not seen the plaintiff for some considerable time before giving the certificate, and that consequently he had failed to exercise reasonable care in signing the document complained of. Nor do we see how they could have decided otherwise. We do not think a medical practitioner should sign any document bearing upon the mental condition of a person without being perfectly aware of the consequences of his so doing, and without a full knowledge of the penal clauses in the recent Lunacy Act. The care that is taken throughout the Act to make it plain that no certificate shall be signed without the patient having been seen within a very few days, should have warned the defendant to be careful in stating in writing that the plaintiff was of unsound mind, and it would clearly have been exercising more reasonable care if he had had a personal interview with him before committing himself to a written opinion.

*Inebriate Asylums.*

In a former number of the Journal we recorded the progress made in regard to institutions for inebriates—a term happily substituted for habitual drunkards.

We have before us the last, that is to say, the “Eleventh Report of the Inspector of Retreats under the Inebriates Acts, 1879 and 1888,” presented to Parliament in 1891.

Dr. Hoffman states that he has had no occasion to find fault with their sanitary or general condition. A new Retreat has been opened during the year 1890—The Grove, Fallowfield, near Manchester. In a short time it was filled with twenty female patients.

During the year 109 patients were admitted to the different establishments. The following passage in the Rickmansworth Retreat may be quoted:—“With regard to our work, the year 1890 has been a very successful one. The Home has been full throughout, and the results of treatment have been more than usually encouraging. Including private cases, 59 have been under our hands during the year. I (Dr. Braithwaite) think the main points requiring urgent attention to make legislation for inebriates of more universal value are:—

“(1.) Less obstruction to the entrance of voluntary patients by doing away with appearance before Justices, or, at all events, of appearance before *one* Justice.

“(2.) Compulsory reception and detention of inebriates too will-paralyzed to apply of their own account.

“(3.) Need for provision for the poorer classes.”

Statistics of this Home since its opening are given. The number of patients discharged during this period amounted to 224. The average length of period under treatment was about  $6\frac{1}{2}$  months. Of these, 94 are doing well, 10 are improved, 10 were discharged as insane, one died, 35 were not heard of after discharge, and—a melancholy confession to make—74 were not improved. Of the various forms of inebriants used whisky was by far the most frequent—namely, in 84 of the number discharged (224).

A new Retreat is to be opened, if it has not been so already, at Saltash, in Cornwall, during the year 1891.

The existing number of Retreats amount to seven, the number of patients licensed for being 100. There were, however, only 59 under care January 1, 1891.

The following is a list of the Homes, the name of the

licensees, with the number and sex of the patients licensed for:—

Number of Retreats ... .. 7

Name and Situation of Retreat.	Name of Licensee.	Number of Patients Licensed for.	Sex.	Number of Patients remaining Jan. 1, 1891.
Colman Hill House, Hales Owen, Worcestershire.	Emma T. Branthwaite, Eleanor F. Branthwaite, and George C. Branthwaite.	10	Female	—
Dalrymple House, Rickmansworth, Hertfordshire.	R. Welsh Branthwaite, L.R.C.P. Lond., M.R.C.S.	20	Male	11
High Shot House, East Twickenham, Middlesex.	Charles J. Boorne and Alfred H. Gibbs.	10	Male	10
St. Veronica's Retreat, Chiswick.	Isabelle F. Smith.	10	Female	—
Old Park Hall, Walsall, Staffordshire.	F. J. Gray, L.S.A.	10	8 males and 2 females	6
The Grove, Fallowfield, near Manchester.	(Mrs.) Mary Hughes	20	Female	20
Tower House Retreat and Sanatorium, Westgate, Kent.	John H. Brown.	20	14 males and 6 females	12
		100		59

N.B.—Private patients, as well as patients under the Act, are received at all the above Retreats.

## PART II.—REVIEWS.

*Thirty-Third Annual Report of the General Board of Commissioners in Lunacy for Scotland.* Edinburgh. 1891.

The year 1890 has witnessed a further increase in the total number of lunatics coming under the official cognizance of the Commissioners. On 1st January, 1891, the total was 12,595, an increase of 282 since the corresponding date of the previous year. The changes during the year as regards the distribution of the insane are as follows:—In royal and district asylums there is an increase of 46 private and 188 pauper patients. In private asylums there is a decrease of four private patients, and in parochial asylums



an increase of six pauper patients. A decrease of one has taken place in the general prison at Perth, and in training schools for imbecile children there has been an increase of five private and seven pauper inmates. In private dwellings there is a decrease of four private and an increase of 44 pauper patients. Private patients have increased by 38, and paupers by 244. Lunatics in asylums have increased by 242, and those accommodated in private dwellings by 40. The increase in establishments of 40 private and 200 pauper patients is above the average annual increase for the five years 1886-90, when the figures were respectively 35 and 123.

As regards *establishments* (under which term are included royal and district, private and parochial asylums, lunatic wards of workhouses, training schools for imbeciles, and the lunatic department of the general prison), the following changes have taken place during the year:—The number of private patients directly *admitted* was 522, 43 more than during the previous year, and 45 more than the average for the quinquenniad 1885-89, while the number of paupers admitted was 2,213, 52 more than the preceding year, and 151 more than the average for the five years 1885-89. Ninety voluntary boarders were admitted, an increase over the average for the 10 years 1881-90, and the number resident on 1st January, 1891, was 61, an increase of six over the number at the corresponding date of the previous year.

The number of private patients discharged *recovered* was 199, which is two below the number for the previous year, but 13 above the average for the five years 1885-89, and the number of paupers recovered was 975, 31 above the number for the previous year, and 45 above the average for the five years 1885-89. The proportion of recoveries per cent. of the numbers admitted into each class of establishment is shown in the following table:—

CLASSES OF ESTABLISHMENTS.	Recoveries per cent. of Admissions.	
	1885 to 1889.	1890.
In Royal and District Asylums ... ..	39	38
„ Private Asylums ... ..	34	35
„ Parochial Asylums ... ..	42	46
„ Lunatic Wards of Poorhouses ... ..	6	11

The number of private patients who *died* was 140, 41 more than in 1889, and of pauper patients 638, 45 more than

during the previous year. The following table gives the death-rate of private and pauper patients per cent. of the average number resident:—

CLASSES OF PATIENTS.	Death-rates in all Classes of Establishments per cent. of the Number Resident.	
	1885-89.	1890.
Private Patients... ..	6·6	8·4
Pauper Patients... ..	8·1	8·1

The death-rate in the various establishments is shown in the following statement:—

CLASSES OF ESTABLISHMENTS.	Proportion of Deaths per cent. on Number Resident.	
	1885-89.	1890.
Royal and District Asylums ... ..	7·8	8·5
Private Asylums... ..	8·0	7·8
Parochial Asylums ... ..	8·9	8·9
Lunatic Wards of Poorhouses ... ..	5·5	4·0

A further diminution of *escapes* from establishments during the year has again taken place, the proportion per 100 resident being 1·9, as compared with 2·0 during the preceding twelve months.

The number of reported *accidents* is 110, 14 less than during 1889. Of these nine ended fatally. In three instances the death was suicidal, one by hanging, one by cut-throat, and one by drowning. Another case of drowning was probably suicidal. Of the five deaths not suicidal one was due to drowning while bathing, three to the impaction of food in the pharynx in general paralytics, and one to asphyxia in an epileptic fit. In 43 cases the accident involved fracture of bones or dislocation of joints, occasioned in 18 instances by falls, in four cases by assaults by fellow-patients, and in 11 by struggling with patients or attendants. In seven cases the accident was unintentionally inflicted, and in three the cause was not ascertained.

In the section dealing with the *present condition of Establishments* references to increasing population and the necessity for providing additional accommodation are not in-

frequent, and it is noteworthy that in considering the question of additional buildings the provision of improved hospital accommodation for the sick and those requiring special care takes a very prominent place.

The systematic boarding-out of pauper lunatics in private dwellings as adopted in Scotland has unquestionably so far tended to diminish the necessity for additional asylum accommodation, but whether the relief afforded by this method has not nearly reached its limit would appear to be matter of doubt. So much, indeed, was hinted at in the Psychology Section of the British Medical Association at its last meeting by the Medical Superintendents of two Scotch Asylums. It appears from their remarks that there is a disposition on the part of those who receive such boarders to demand increased payments for their maintenance, and that in consequence the difference of cost between boarding-out and asylum care is becoming so little that the parochial authorities do not exert themselves to provide accommodation in private dwellings. This view is not, however, supported by the statistics given in the Commissioners' report, where it is clearly shown that in recent years the proportion of pauper lunatics maintained in private dwellings has increased, while the proportion in asylums has diminished. Taking the last six years given in Table I. of Appendix A., calculation shows that the proportion per cent. of all pauper lunatics in asylums and private dwellings is as follows:—

1st January.	In Asylums.	In Private Dwellings.
1886	77·9	22·1
1887	77·2	22·8
1888	76·5	23·5
1889	76·8	23·2
1890	76·1	23·9
1891	76·2	23·7

Dividing these six years into two periods of three each, the proportion is:—

1886-88	77·2	22·8
1889-91	76·4	23·6

The average maintenance rate per week for pauper patients in asylums has diminished during the past 10 years from 10s. 2½d. to 9s. 7½d., while that for patients in private dwellings has increased from 5s. 3d. to 5s. 11¾d., but even with this approximation of the cost of maintenance under the two conditions the figures given above show no falling

## NUMBER OF LUNATICS AT 1ST JANUARY, 1891.

MODE OF DISTRIBUTION.	Male.	Female.	Total.	PRIVATE.			PAUPER.		
				M.	F.	T.	M.	F.	T.
In Royal and District Asylums...	3459	3657	7116	727	800	1527	2732	2857	5589
„ Private Asylums .. ..	44	108	152	44	108	152	—	—	—
„ Parochial Asylums, <i>i.e.</i> , Lunatic Wards of „ Poorhouses with unrestricted Licenses...	708	809	1517	—	—	—	708	809	1517
„ Lunatic Wards of Poorhouses with re- stricted Licenses .. ..	444	438	882	—	—	—	444	438	882
„ Private Dwellings .. ..	1033	1580	2613	40	84	124	993	1496	2489
„ Lunatic Department of General Prison ..	5688	6592	12280	811	992	1803	4877	5600	10477
„ Training Schools .. ..	42	15	57	—	—	—	—	—	—
„ „ „ „ „ „	164	94	258	81	61	142	83	33	116
TOTAL ... ..	5894	6701	12595	892	1053	1945	4960	5633	10593



off in the number of pauper lunatics who are provided for in private dwellings; quite the reverse.

Accidents, escapes (or "purposeless wanderings") and untoward occurrences are, of course, inseparable from such a system in which the amount of liberty accorded is so large, but these, in the opinion of one of the Deputy Commissioners, are not more frequent or more serious than they are in asylums. In one case an imbecile young woman was found to be pregnant, but the perpetrator of the outrage could not be discovered, and in another case a man was accidentally drowned.

Careful consideration of the exhaustive statements and statistics contained in this report leave little or no doubt on one's mind that the system of boarding-out pauper lunatics, as carried out in Scotland, and the peculiarity of which is that every individual member of the class so provided for is brought directly under the supervision of the central administration, has in the past met with a large measure of success, and, so far as one can judge, there is little reason to suppose that it will in the future be attended with any other result. At the same time the possible moral injury done in some cases to the families of those who take charge of them must not be lost sight of.

The table on p. 101 shows the number of lunatics on 1st January, 1891, and the mode in which they are distributed.

*Fortieth Report of the Inspectors of Lunatics in Ireland.*

The insane of whom the Inspectors had cognizance on January 1, 1890, and January 1, 1891, numbered as follows:—

	On 1st January, 1890.			On 1st January, 1891.		
	Males.	Females.	Total.	Males.	Females.	Total.
In District Asylums .....	6,037	5,143	11,180	6,194	5,924	11,488
„ Private Asylums .....	259	372	631	253	368	621
„ Central Asylum, Dundrum...	146	30	176	150	29	179
„ Workhouses...	1,600	2,438	4,038	1,566	2,395	3,961
„ Gaols .....	1	—	1	2	—	2
	8,043	7,983	16,026	8,165	1,086	16,251

Following the order adopted by the Inspectors, we may consider first what is said about the district asylums. With reference to these institutions, we are at last presented with some information that is of interest. The Inspectors have for the first time adopted the laudable custom of appending to their general report copies of the reports made at individual asylums.

The most striking feature of these "memoranda of inspection" is the singular sameness they exhibit. Elsewhere asylums vary according to the constitution of their governing bodies, and largely according to the character of the medical officers. We in England are accustomed to hear much said about the differences existing between the conditions of life in different parts of Ireland, the different nature of the population, etc. Our Irish colleagues, as we know, have not been all brought up in the same school. The most obvious cause which suggests itself for the very uniform condition of the Irish asylums is to be found in the circumstance that central control has always been much more developed in the sister island than in other parts of the kingdom. The sense of individual responsibility has thus been numbed both in governing bodies and in asylum physicians, and all healthy competition, as well as all originality, has been checked by a system of management adopted to meet departmental convenience, without any regard for or knowledge of the peculiar requirements to be dealt with. Irishmen are too apt to attribute all their difficulties to the "state of the country." This is no better than the hypothesis of a double dose of original sin. At any rate, the fault which we have adverted to has existed in the construction of the Irish asylum service, and the condition (which is at least a *post hoc* condition) described in the report before us is not satisfactory.

Overcrowding seems general. "All the district asylums throughout Ireland may be said to be more or less overcrowded." According to the tables, the least overcrowded appears to be Maryborough, which had 69 vacancies at the end of the year, and the most overcrowded the Richmond, with 268 in excess. The most overcrowded in proportion to the population, however, would appear to be Mullingar. Here what is oddly called the limit of accommodation was 430, while the number of inmates was 606. Of the twenty-two district asylums twelve were over full, several very much so; in two the population exactly equalled the

accommodation, in eight there was room vacant, though usually very little. The local authorities seem curiously apathetic on this point. It is evident that they regard it as the duty of the central authority, and not theirs, to make the necessary provision. That they should accept this view is not unnatural, if we are correctly informed that the buildings are constructed by a Central Board, called the "Board of Control," which, in fact, stands in the position of landlord to the asylum properties. In many of the asylums, it would appear, an effort is being made to provide adequate accommodation; in others, as we gather from the report, the Inspector's representations on this subject have been ineffectual. The state of affairs at Carlow is thus described:—

"We are sorry to have to report that no progress whatsoever has been made to carry out the very necessary improvements and additions required at the district asylum at Carlow—although they have now been under consideration for more than a year. Unprovided with a sufficient water supply, with its drainage system defective and obsolete, overcrowded, with insufficient accommodation and appliances for cooking and washing, with flagged cells in some parts, with wards meagrely furnished and devoid of all those comforts universally seen in modern public asylums, this institution must be looked on as inferior to all other public asylums in Ireland, and calls for the serious consideration of all responsible for its management. At the instance of the Board of Control plans to meet all requirements have been prepared by the local architect, but they have not as yet been considered by the Governors."

Apparently a project for turning workhouses into succursal asylums, and thus providing the needful accommodation, has found favour with Boards of Governors in some places. It is thus dealt with by the Inspectors:—

"Buildings suitable for harmless and chronic lunatics may, as we have just stated, be erected or obtained at a less cost than would be required to build new asylums, or to make additions to those already in existence. It must, however, be remembered as regards the present condition of many of the public asylums of this country that the lunatic wards of a Scotch or English workhouse are much more handsomely decorated and better furnished. Many Irish asylums at the present time have nothing but whitewashed walls—are utterly devoid of all those articles of decoration which render the wards of a modern asylum home-like—and their furni-

ture is of the most meagre and shabby description. When, therefore, we hear so much of the 'costly edifices for the insane in Ireland,' no accusation of undue liberality in their internal decoration can be reasonably made against the governors. Although it may be allowed that persons labouring under certain forms of insanity may be treated in establishments with less architectural pretensions than the Irish public asylums, no class of the insane should be permitted to receive less care and attention than the patients of these institutions receive at the present time."

The devices adopted in other places for showing accommodation which does not exist are not good. In the case of Maryborough Asylum, above referred to, we learn that "there is no Board-room, except the superintendent's dining-room; no clerk's office, no visiting room for either males or females." Have the governors been reading *Oliver Twist*, and do they desire to relieve the difficulties of any little *Oliver* who may be called upon by Bumble to "bow to the Board" by providing the unmistakable hospitable board of the medical superintendent as the object of his salaam? And of course the friends of the patients can be excluded—such people are long suffering in Ireland, but what does the clerk do for an office? Does he work in a tent? By the way, we find no trace in this report of the circumstance with which a perplexed Irish superintendent used to convulse his English friends, when he assured them that his asylum buildings were so overcrowded that he had to place his patients under canvas. The tale has the ring of *Harry Lorrequer*, but such odd things happen in the distressful island that we actually gave it credit!

Again, kitchens and means of cooking appear to be generally inadequate. At Armagh we are told the kitchen is not "sufficiently large for the requirements of the institution," while "great difficulties exist in furnishing the extras, such as beef tea, for the use of the sick, and they have generally to be provided out of the medical superintendent's kitchen." Here a new cook is recommended, as well as a new kitchen. *Horresco referens*, but one cannot help hoping that the Board will not endeavour to combine the offices of cook and medical superintendent. In Kilkenny the following memorandum is made by the Inspector:—

"The dietary does not in my opinion appear to be in accordance with the food in general use amongst the Irish



peasantry, and is inferior to the dietary given in many Irish asylums, but it is useless to go into the matter at present, as no improvement can be attempted until a proper kitchen has been provided."

In Maryborough:—

"The kitchen has never been altered to meet the increasing demands of the institution. It remains as it was on the first opening of the asylum, and is so small as to be utterly unequal to cook for so large a number. The scullery measures 9 feet by  $4\frac{1}{2}$  feet, and can only be described as a closet. More adequate provision for cooking is therefore urgently required."

And so forth.

Another defect so common as to be almost universal is a want of sufficient laundry accommodation. In some of the institutions this is assigned as a reason for a somewhat deficient supply of fresh clothing. It is difficult to understand how cleanliness can be at all preserved in many places considering such statements as the following, made at Mullingar:—

"Only one sheet is allowed. This, the Resident Medical Superintendent informed me, is owing to the difficulty of washing, and that a second sheet will be given as soon as the new laundry is in working order."

Or this at Cork:—

"A separate building set apart as a daily laundry for the washing of the clothes soiled during the night is also required. . . . The room at present in use for this purpose is so small as to render it impossible that the work can be properly done."

In the same way complaints are made in most of the asylums of the insufficiency of stores. In Belfast the stores and the laundry appear to be amalgamated in some strange fashion, and the Inspectors judiciously suggest that the female patients working in the laundry should be "isolated from any communication with the stores, and should not be overlooked by strangers coming on business to the asylum."

In most of the institutions the Inspectors comment on the subject of heating, and note unfavourably that there is no means of warming the rooms save by open fireplaces, so that dormitories and single rooms are unheated. It is pertinently observed at one asylum —

"It certainly seems anomalous that while provision is made in all the Irish prison cells for maintaining in the

coldest weather a temperature of 65° Fah., so few of the single rooms in our asylums are heated artificially, notwithstanding the well-known fact that many of the insane who occupy such rooms are restless in the extreme, and constantly spend the night standing on the floor in a state of nudity or semi-nudity. We are, however, glad to be informed that these subjects were engaging the attention of the Governors, and when they come under the consideration of the Board of Control we shall be happy to give every assistance in forwarding the proposals of the Board of Governors."

An absence of decoration and even of ordinary furniture is noted in several places. At Omagh, "except in the cases of the paying patients on the female side, no tablecloths, plates, cups, knives or forks are supplied for the use of the patients, who are only allowed vessels of tin with spoons. In the most modern asylums every attempt is made to improve the habits of the insane by supplying as far as possible all those articles which will tend to foster habits of respect and control."

At Mullingar "I saw a relay of the patients at dinner, and I was strongly impressed with the urgent need of the dining hall, where the joints can be carved and distributed in the presence of the patients, and where the dinners can be served with the decencies of civilized life; tablecloths, knives, forks, glasses, and simple castors. The resident medical superintendent is fully aware of the necessity, and I feel confident that he will provide them as soon as the necessary accommodation has been completed."

At Belfast "we saw the patients at dinner in their hall. The meal was served in electro-plated bowls with tin spoons. No knives, forks, plates, or delf bowls were provided." ("Electro-plated" is probably a slip of the pen for enamelled metal.)

In some places what the furniture wants in quantity it makes up in unique quality. Thus at Omagh:—"The chamber utensils are of galvanized iron, forming most dangerous weapons of offence." We wonder how the night staff are protected. Do they wear iron skull-caps, or does this "weapon," like that of Roderick Dhu's Saxon opponent, serve both for helm and spear? Luckily there appears to be in that asylum only one night nurse and one night attendant (for 297 males and 264 females!)—a fact on which the Inspectors rightly comment with severity. We noticed last

year that the present Inspectors adroitly disclaimed responsibility for the building of the district asylums. Having in view what the report before us reveals we do not wonder at the disclaimer, but we cannot but condemn the system under which such structures, so radically defective and planned with such utter want of foresight, have been erected to serve as an impediment to progress and an obstruction rather than an aid to the charitable purposes of the Commonwealth. This Journal has always protested against the system by which in Ireland the real management of the insane was removed from local control and kept in the hands of a central department. We are informed that most of the modern Irish asylums were erected by a gentleman who was architect to the Board of Control, and that all "structural alterations and additions" were carried out under his care. We see in the report the result of this system. Uniformity, indeed, has been fairly brought about, but it is the very bad sort of uniformity which usually comes of over-centralization.

When the medical officers of asylums are placed in such difficulties as are almost universal in Ireland it is not to be wondered at that in many points of administration and domestic rule the asylums in that country are somewhat backward. The trouble and anxiety involved in contending against the state of affairs inherent in the very structure of the buildings must be enough to occupy the entire mind of the officers and must serve as an effectual extinguisher to scientific zeal and medical work. We notice that the old deficiency of assistant-medical officers appears to be still felt. The Inspectors draw attention to this want in several places, but have not suggested to the Board of Governors what would be very acceptable in a country where economy is so much studied, a cheap and easy means of providing these officers. The place of assistant medical officer can be very inadequately filled by a visiting physician, though we learn that in Londonderry Asylum the latter officer keeps the case book; but a great advance in efficiency could doubtless be secured by doing away with the obsolete visiting staff and replacing it with assistant medical officers. This is a reform which we have thought it necessary to suggest many times during the last quarter of a century.

Under the unfortunate conditions in which they are placed it is very creditable to our Irish colleagues that suicides and accidents seem to be so rare. Five suicides occurred during the year under review. None of them appear to have called

for special comment. The most serious accident was a death by violence at the Richmond Asylum. This event we commented on at some length in a previous number of the Journal.

“At the same asylum (Dublin) a female patient, who had been for years working in the kitchen, was found to be pregnant. The mental condition of the woman was such that no dependence could be placed on her evidence; but it was supposed that the guilty person was another patient employed in the stores. Unfortunately, so faulty is the construction of this department that proper supervision is impossible.

“At Enniscorthy a female patient opened with her fingers an old wound in her abdomen, and pulled out a coil of intestine. She, however, made a good recovery.

“Eleven attempts at suicide were recorded, and twelve accidents, resulting in fracture or dislocation of bones.”

We are glad to observe a tendency in many instances to give encouragement to the medical staff. It being necessary to speak severely of the state of Cork Asylum the Inspectors take care to exonerate Dr. Oscar Woods, who had been recently appointed medical superintendent, and who could not, of course, be responsible for a condition of things evidently of some standing. Two or three of the medical superintendents are praised for their energy, intelligence, and courage, and a kindly word is said sometimes for an assistant, which we hope the governors will bear in mind. Unstinted praise is bestowed on Dr. Finnegan, of Mullingar, praise which no one who knows him will grudge, particularly as it is evident that Dr. Finnegan has his share of the difficulties which beset all our Irish friends. At least one asylum in Ireland has thoroughly satisfied the Inspector, and it is pleasant to read so agreeable a break in the monotony of official reserve as the following:—

“The management of the asylum (Mullingar) by the Board of Governors is liberal and enlightened. Both the assistant medical officer and the matron seem excellent officers, while the resident medical superintendent has evidently his heart in his work, and is earnestly endeavouring to make the asylum fulfil the objects for which it was founded—first, as an hospital for acute cases of insanity, and, secondly, as a comfortable home for other classes of mental invalids who need the care and appliances of a fully-equipped lunatic asylum.”



It is to be feared that it may be some little time before some of the other Irish asylums are entitled to the praise of being "fully equipped."

*Idiots and Imbecile Children.*—Closely connected with the public provision for other classes of the insane is the special provision which ought to be made for idiots and imbeciles. The story which the Inspectors tell is a pitiful one. "One of the greatest requirements in connection with lunacy in Ireland is the establishment of a National Institution for the training and education of idiots and imbeciles, such as are the Larbert and Baldovin Institutions in Scotland, and the Royal Albert and Earlswood Asylums in England. We may estimate roughly that there are not less than 3,000 idiots and imbeciles in Ireland, of whom probably 500 are under fifteen years of age, and at least half of these would be improvable, and derive benefit from the special training in idiot schools. The existing Lunacy Laws were not made for imbeciles, and we find in Ireland no less than 418 of this unhappy class occupying in district asylums accommodation properly intended for different forms of insanity, mimicking the shameless indecencies which are brought before their eyes, their moral degradation completing their mental deficiency, while no less than 1,888 are scattered over the workhouses, where the provision made for them is often inadequate, where their very presence exercises a painful and demoralizing influence on the other inmates, and where in some cases (as pointed out in our reports on particular institutions) they live in mechanical restraint to prevent their mischievous and destructive habits. The great majority, however, remain as hopeless wanderers, exposed to want and suffering, residing in homes where they can only in rare instances obtain the treatment suitable to their condition, while often they are grossly neglected. A case recently came to our knowledge where a poor woman, residing in one of the thoroughfares of Dublin, and occupied at work during the day, having an imbecile child and no means of caring for him, has been obliged to chain him to her bedstead while she is absent at her daily work."

This hardly seems quite *fin de Siècle*, and appears a strange pronouncement to be uttered in the *Fortieth Report of the Inspectors of Lunatics in Ireland*.

The Inspectors go on to say:—"Not alone did the preamble to the Irish Church Act declare that the released funds should be appropriated mainly to the relief of unavoidable

calamity or suffering, but Mr. Gladstone, in his introductory speech, *discriminating between lunatics and idiots*, estimated that the provision in aid of the former would amount to £185,000 a year, while the provision for idiots might cost £20,000 annually," and then in newspaper phrase they complain that "by the very irony of fate" Mr. Gladstone's intentions have never been carried out. Fatalism is not to our mind. It would appear to us that the unhappy idiots have been thrown over and neglected simply because there was nobody to care about them.

*Private Asylums.*—The Inspectors repeat their assertion of last year that "the condition of these houses, with some few exceptions, is not entirely satisfactory." They have found it necessary to recommend the revocation of the license in one case. The House of Saint John of God, licensed to the Rev. Eugene Picard, is highly spoken of, though the illegality of confining "dipsomaniacs" in an asylum is noted. This class is a curse, and a difficulty everywhere. The institution is flourishing, and is about to be enlarged. The Inspectors very properly urge the appointment of a resident medical officer.

*Boarding-Out.*—The Inspectors refer briefly to the boarding-out of pauper lunatics, which they hardly seem to think feasible. They point out the difficulty of obtaining suitable hosts in Ireland, owing to the poverty of the population, and they rightly say that to develop the system would take a long time. It seems too slow a process to be of any immediate service in meeting the congested state of the Irish asylums.

There is a great improvement in the arithmetical part of this report. It is still to be noticed with regret that the Inspectors do not seem to have sufficient means of correcting and verifying their statistics. At page 5 the following table is given:—

	Number of Private Patients in Asylums on 31st December, 1889.	Number of Pauper Patients in Asylums on 31st December, 1889.	Proportion per cent. of	
			Private Patients.	Pauper Patients.
Scotland ... ..	1,765	10,233	14·7	85·3
Ireland ... ..	847	15,002	5·3	94·7

The proportions should be, on the first line:—Private patients, 17·25 (nearly); pauper patients, 82·75 (nearly). On

the second line:—Private patients, 5·64 (nearly); pauper patients 94·46 (nearly). The first error is of some importance, as it involves an under statement of the case the Inspectors are making.

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*The Neuroses of Development: The Morison Lectures for 1890.*  
By T. S. CLOUSTON, M.D., F.R.C.P.E.

We welcome in this book a most valuable contribution to psychology, but the book will repay the general medical reader as well as the mental specialist, for it grapples with fundamental propositions which concern us all. Dr. Clouston starts with the proposition that every organic tissue shows two periods in its development, viz., a stage during which the tissue is growing in bulk, each individual unit of the tissue advancing to its full stature, and another stage during which the functions of the elements of the organ or tissue are being perfected, whilst in outward form there appears to be no change nor does the bulk increase. Not a doubt that changes in form are occurring in the latter stage, but they are as yet hidden; they are molecular, so to speak.

Applying this proposition to the nervous system, we find that the brain attains its maximum weight at the age of seventeen or eighteen years, though it only falls short of this full weight by a few ounces at the age of seven. From the age of seventeen to about twenty-five, when the brain attains its full maturity of function, there is no further increase of weight. During this long period the changes which have been wrought are as invisible as the changes which have taken place in a bar of iron which has been magnetized. During the period of growth in shape and bulk, the formative period, there is, according to Clouston, more absorption of oxygen, more excretion of carbonic acid, than during the subsequent stage. Also during the formative period the type which disease assumes is more proliferative than functional and degenerative, these latter characterizing the disturbances of the later period. Of course it will not be maintained that the period of plastic change is unattended by that inner molecular arrangement which must accompany functional advance—this latter obtains in both periods—but functional changes are less pronounced, whilst the raw material is being actually prepared, and the tissues are actually growing.

Next it is clear that we may establish two periods of vital importance in the growth and development of the brain, viz., the periods of non-reproductive capacity, and of establishment and maturation of this capacity, *i.e.*, the period preceding puberty, and that from puberty through adolescence up to maturity. Of these the author says (p. 3), "The periods of brain growth and of non-reproduction do not absolutely correspond, but it may be held as a great law that when active cell growth ceases in the cortex, then only does reproductive function begin." Dr. Clouston holds it probable that if our knowledge of heredity and of physiology were sufficiently advanced we should be able to fit into one great scheme the whole of the neuroses of development, from the acephalous foetus, the hare-lipped, cleft-palated, open-spined child, through a long list of developmental defects or disturbances up to the moral perversions, volitional paralyses, and intellectual peculiarities which are met with in both sexes during this period of life.

Dr. Clouston then discusses the possibility that one tissue of the body may mature, whilst another tissue is still undeveloped, and shows the strong physiological grounds there are for believing this. We cannot doubt that, as he says, the blood has attained its complete development, and in general the heart and vascular system also, either before birth or in early childhood. But the brain—where is it? However, if we introduce, as a test of development, the power which a tissue possesses of resisting disease, we must, perhaps, modify this statement as to the vascular system, for Dr. Clouston puts forward the proposition that "*Any tissue or organ that is abnormally non-resistive to disease may be fairly considered not to have attained maturity, or to have undergone retrogression, temporary or permanent.*" Applying this he points to the lungs as being more susceptible to the bacillus of tubercle during adolescence, to the skin of the child as less resistive to certain parasitic skin affections, and he argues that though the lungs and skin appear as perfect, perhaps even more perfect in their structure in childhood, yet this non-resistance would indicate incomplete development. Tried by the same test the vascular system, also, would fail, for we know that in the disease rheumatic fever the danger of inflammation of the endo-cardium is greater in childhood than in later life. Making all due allowances, however, and taking into account this test of stability of the tissue, there can be still no doubt that the several tissues and organs of



the body follow different rates of development, and that perfection is attained latest by the higher nervous tissues, the last to reach completion being the cells of the cortex.

Speaking on "the long period of development of function that succeeds incomplete growth of the brain," the author wrote, on page 7, "It is not a mere question of the education of cells that have a certain innate power to be brought out; it is a question of a true development of a lower capacity into a higher." How far is this statement capable of proof? The innate power we must grant, but that of the development or bringing out of this innate power is independent of the enviroing circumstances, can this be sustained? Is it, indeed, a true development of a lower *capacity* into a higher, or is it not rather a development of a lower *efficiency* into a higher?—the *capacity* or potential of the cells being an initial grant not capable of subsequent augmentation?

Just as, morphologically, we see one tissue after another in series come to structural perfection, so corresponding functions are elaborated in corresponding series, and each function will hence have a definite relation of sequence to the other functions of the organism. In the evolution of the functionally complete nervous system this is well illustrated; group after group of cells become co-ordinated. The group of cells which preside over the co-ordinated movements of sucking are functionally organized at birth. At a long interval follows the organization of the centres for movements of the limbs, and when these have attained some degree of perfection the centre for speech is still far from developed. Lastly the centre for speech may have become fairly organized, yet "the great function for which speech exists, viz., mentalization," may postpone its advent. At one or other stage in this onward march delay or arrest may obtain, and various degrees of imbecility or backwardness result. But a fault of another kind may occur, viz., the premature or precocious development of one or more groups of cells, for from such it will result that the normal sequence is set at naught, and however marvellous the prodigy which ensues it must be looked upon as pathological—because lacking proportion—ill balanced. Dr. Clouston wisely advises us on this subject, when he says, "But I think that development of any faculty or power in a boy or girl, in a lad or a maiden under twenty-five, that is premature in time, or that is clearly out of pro-

portion to other faculties and powers, should be carefully watched and looked upon with much medical suspicion."

The ugliness of disproportion, the lack of harmony, resulting from inconsequential development, may take outward and visible shape when it affects the bodily framework. This is remarkably portrayed in Plate I., which displays J.R., an example of developmental ugliness, and it is also well seen in Plate II., showing an example of developmental dwarfishness. The mischief is, however, less in such cases than when a deformed or defective mind puts on the mask of a beautiful and expressive face and eye, not an uncommon occurrence in an idiot, according to the author, who says, forcibly, "The face and eyes of such an idiot tell lies when they thus express mind."

Lecture II. is devoted to "the morphological signs of a bad neurotic heredity." Dr. Clouston enforces the truth of the rule that an abnormal mental faculty tends to be accompanied by an abnormal facial physiognomy, though he does not fail to admit the exceptional occurrence of beautiful minds in ugly bodies and of ugly minds in beautiful bodies. In this chapter we find, in particular, the results of some important investigations, by the author, into the shape of the palate and its relation to idiocy and imbecility, to adolescent insanity (which the author had long ago demonstrated to be the most hereditary of all forms of mental disease), to other forms of insanity, and to criminality. The palate is divided into three types, the typical, the neurotic, the deformed, and it is striking to observe the large percentage of deformed palates among those classified under the above headings. Thus, whereas in the general population 19 per cent. only show deformed palates, in idiocy and imbecility, and also in adolescent insanity, the proportion reaches 61 per cent. and 55 per cent. respectively. These percentages are obtained on large numbers of the investigated. If concerning these results it may be said that these mental failures have at least the good taste to build their palates on Gothic lines, the consolation after all is but small.

In discussing the relation of the palate to the base of the brain, Dr. Clouston embodies in a series of propositions the reasons for the dependence of the shape of the palate bone upon the development of the base of the brain. His results traverse those of Clay Shaw, but confirm those of Langdon Down.

Among the neuroses of development the author includes chorea. This must mean that he assigns to this disease a much greater neurotic heredity than some writers, Gowers, for instance, who places at one-sixth the history of neuropathic tendency. Is not the marked relationship of "certain cases" to acute rheumatism and also of certain others to endocarditis, apart from acute inflammatory joint troubles, difficult to account for on the lines of a developmental neurosis? Perhaps it is a question rather of name, whether, for instance, we shall call acute rheumatism or neurotic heredity the exciting or predisposing cause. Will not this view satisfy the demands of the problem that the inherited unstable brain predisposes to the inco-ordination which rheumatic fever, *amongst other agencies*, excites?

The barking cough of puberty described by Sir Andrew Clark under the name *cynobex hebetis*, and mentioned here as a developmental neurosis—how does it differ from the well-known barking cough of hysteria, the *tussis ferina*? Its description fits in accurately with the characters of this cough given, in 1837, by Stokes in his "Disease of the Chest," p. 263.

Two most interesting cases, regarded by Dr. Clouston as of general paralysis, occurring at about the age of puberty (14-15 years), are recorded in full. Both patients, girls, showed marks of congenital syphilis, and a neurotic heredity was also strong in both cases. Clouston looks upon the syphilis and neurotic heredity as predisposing causes, on puberty as the exciting cause, and he comes to the conclusion that general paralysis may in rare cases show itself as a developmental neurosis.

On tuberculosis in relationship to developmental neuroses, especially to insanity, some important points are raised. The high rate of mortality from phthisis which is observed both among the insane and among idiots is of great interest. Dr. Clouston thinks that the facts of the case warrant the conclusion that a heredity towards phthisis may determine insanity and *vice versâ*. Of course, the bacilli, assuming their causal relation to phthisis, will rank as exciting causes.

The third and end chapter we must leave, though it discusses very interesting problems, such as developmental epilepsy and epileptic insanity, hysteria, etc. In conclusion we would say that this short treatise, which claims to be a sketch, rather than a magnum opus, leads us to hope that

the great work may yet be forthcoming, and from the same hand, and that in it the propositions put forth here may be further elaborated.

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*Le Crime et la Peine.* Par LOUIS PROAL, Conseiller à la Cour d'Aix. Ouvrage Couronné par l'Académie des Sciences Morales et Politiques. Paris: Alcan. 1891 (dated 1892). Pp. 544.

M. Proal has exercised the functions of a magistrate for many years at Rouen, Lyons, and Aix, and has now embodied in this lengthy prize essay the reflections which his duties have suggested to him. He includes a wide range of very interesting subjects, such as crime and atavism, crime and heredity, crime and insanity, crime and degeneration, crime in relation to sex and race, crime and ignorance, crime and destitution, together with his own thoughts as to the foundations of penal justice. He appears to have read most of what has been written in French bearing on the subject of his work, and his acquaintance with ancient literature is very extensive. It cannot be said, however, that he has himself made a very novel or important addition to the literature of criminology. His position throughout is not that of the philosopher or the man of science, but of the magistrate; and, as he himself very truly remarks, magistrates are not without justice charged with "an extreme attachment to common sense, an excessive love of tradition, and an exaggerated scepticism with regard to new ideas." The chief "new ideas" towards which M. Proal here shows himself not so much sceptical as actively antagonistic are determinism and Darwinism. His hostility to them runs throughout the book. With his polemical defence of the doctrine of free-will against J. Stuart Mill, Herbert Spencer, Fouillée, and Guyau we are not here concerned, though it may be noted that his arguments are somewhat primitive; one of the strongest is to the effect that the criminal must be free because he believes he is. Darwinism he attacks in association with what is usually called the "Italian School" of criminal anthropology. It is an association which may not perhaps seem very obvious to English readers, but is not altogether unfair, since Lombroso and his fellow-workers were directly inspired by the work of Darwin, and applied several of his conceptions to the study of the criminal. A considerable part of the early chapters of the book is devoted



to a criticism of the various extravagancies, errors, and inconsistencies into which criminal anthropologists have sometimes fallen. Here and throughout, M. Proal exhibits a degree of urbanity, intelligence, and knowledge of the writers he criticizes, which is rare, not merely among the legal, but even the psychiatric critics of criminal anthropology. His arguments are, however, frequently vitiated by his ignorance of the medical sciences and of general anthropology. His conclusion is that the moral and physical degeneration of the criminal is the result rather than the cause of his crime; on the causes he is unable to throw any light. It is worthy of note, as a sign of the times, that even a writer who holds so strongly as M. Proal to the old traditions and conventions recognizes the importance of the movement initiated by the criminal anthropologists. "After having pointed out what he considers the errors and contradictions of Dr. Lombroso," he remarks, "I hasten to add that the Italian scientist possesses the great merit of having called the attention of doctors and philosophers to the causes of criminality. Thanks to the movement which he has created, the questions of penal philosophy have become the order of the day; lawyers and doctors who had previously shut themselves too closely within their own special studies have gained the habit of exchanging their ideas in reviews and congresses. This approximation of medicine and law can bring nothing but profit to criminal justice."

In the latter portion of the book, dealing with the foundations of penal law, he brings forward a few reforms which, though very moderate in character, carry weight on account of the author's conservative attitude. "Thus," he remarks, "I believe it would be extremely useful if law students followed a compulsory course of lectures on mental diseases—not that they might, when they become magistrates, themselves settle questions respecting insanity without the aid of a medical expert, but that they might at least be preserved from gross errors, and be able to recognize the cases in which the accused should be examined by an alienist. A judge who is ignorant that insanity may coexist with premeditation, cunning, and skill in defence, that the lunatic usually repels the suspicion and plea of insanity, and that epilepsy may in some cases be a cause of irresponsibility, may consider a medico-legal examination superfluous, and wrongly believe in the integrity of the mental faculties from signs that are without value. It seems to me difficult for a magistrate to fulfil properly the very delicate mission confided

to him if he has not made a study of mental disease" (p. 359).

In this connection he alludes to the non-compulsory lectures on mental disease actually given at the Paris Faculty of Law by Dr. Dubuisson, and to the resolution passed at the last International Congress of Criminal Anthropology in favour of the compulsory character of such a course.

On another matter M. Proal makes some remarks which are of interest as coming from a lawyer. It appears that in France in the course of a year (1879, for example) out of 100 accused persons having received a superior education 35 were acquitted, while of 100 illiterate accused persons only 18 were acquitted. The reason is, as M. Proal points out, not that there is a larger proportion of innocent persons among the educated accused, but that the latter are in a far better position to obtain skilled advocates to make emotional appeals to the jury, and to produce a miscarriage of justice. He quotes the remark of Diodorus Siculus, that the ancient Egyptians considered that the speeches of advocates merely spread obscurity over questions of law, and that it was best that accusation and defence should be simply and nakedly set forth in writing. In this connection it is interesting to note that in the industrial courts now being established throughout the German Empire (as expressly laid down in the law of 1890, which governs their constitution) neither of the parties in a dispute "may be represented by lawyers or by persons who are professionally engaged in legal proceedings."

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*The British Guiana Medical Annual and Hospital Reports.*

Edited by J. S. WALLBRIDGE, M.R.C.S., and E. D. ROWLAND, M.B. Georgetown, Demerara, 1891.

In his address as President to the Guiana Branch of the British Medical Association, delivered 23rd January, 1891, Dr. Grieve lets us know that there are 41 members in the local branch.

When we remember how little men are inclined to mental exertion within the tropics, we cannot fail to acknowledge that these reports do much credit to the activity of the medical officers of the colony. Dr. Grieve, who is Surgeon-General of British Guiana, has shown himself in every way worthy of this important position, not only by his medical knowledge and sagacity, but by the kindness and benignity of his disposition, as well as by his desire to encourage pathological research. In commenting upon a paper at one

of the meetings, Dr. Grieve remarked that "he had discovered that many of the cases set down as locomotor ataxy were really general peripheral neuritis, dependent on one of two causes: alcohol or the presence of syphilis. The amount of nervous disease existing in the colony was immense, and presented a wide field which was open to everyone, and could be worked to advantage."

Amongst the twelve reports there are two which deal especially with nervous disease. In his "Notes on the Insanity of British Guiana," Dr. W. S. Barnes, who is now the Medical Superintendent of the Leper Asylum at Mahaica, gives some generalizations which he had reached when doing duty at the Lunatic Asylum at Berbice. He found acute mania and melancholia less common than in England, and attempts at escape and suicide less frequent. Delusions and hallucinations are of a simpler character. Amongst coolies the notion is common that they are being visited by their gods and being blessed or cursed by them. Smoking of Indian hemp is a common cause of insanity amongst the coolies, as it is in asylums in India. In Guiana it is frequently combined with excess in alcohol. These patients are the most acutely insane amongst the inmates of the public asylum. The mania is fierce, and they are recklessly violent and regardless of consequences, recalling frequently to one's mind the furor of epilepsy. When the form of the disease is melancholic their mental distress is profound, and they require careful watching. The earlier attacks are usually very curable; but they return again and again unless the drug is given up, and at each recurrence recovery becomes less likely. In most cases hallucinations are a very marked feature, and appear to occupy the patient's mind so fully and vividly, as to render him almost unconscious of his actual surroundings."

In a paper entitled "Notes on the Pathological Conditions found in the Insane at the Public Lunatic Asylum, Berbice," by T. Ireland, attention is drawn to the great prevalence of Bright's disease. During the year 1890 thirty-five deaths were due to this cause, 23 being males and 12 females. The patients were both coolies and blacks. "In most cases," Dr. Ireland observes, "the kidneys after death were found to be pale and granular on the outer surface, with thickened adherent capsule, and tough on section. Usually there were small cysts, scattered through the cortical substance, which was decreased in depth, sometimes appearing as a mere shell. The pelvis was generally increased in

extent, and contained a considerable quantity of unhealthy looking fatty and loose connective tissue. The pale yellowish colour of the kidney more resembled that of the small white kidney of Bright than the small red." This condition is often accompanied by degenerations of the liver and spleen, and sometimes by atheroma of the great arteries and wasting of the heart. In these cases of Bright's disease accompanied by insanity "the brain was pale, soft, and generally wasted. The ventricles were often dilated, and the cerebro-spinal fluid rather in excess. The membranes were usually more or less thickened and opaque. Up till the time of death in the great majority the mental condition was that of dementia, and it is an interesting fact that many patients suffering from Bright's disease are demented when first admitted into the asylum, with no history of an acute stage, and in whom it has either been so short or so slight as to escape notice altogether. It would almost appear as if the functions of the brain were gradually impaired by the altered condition of the blood in such a manner as to produce a state of dementia without any previous acute mental disorder. These patients when admitted are dull, obtuse, and indifferent to their surroundings, though not markedly melancholic. They exhibit impairment of memory and apprehensive power. Occasionally they have delusions or hallucinations which are never of an acute character nor seem to excite or annoy the patient to any great extent."

No doubt insanity is sometimes produced by the action of the fluids upon the brain. The precise composition of the blood in such conditions is more difficult to ascertain than that of the brain substances. Though Bright's disease is more common in some British asylums than in others, it cannot be held to be frequent in any of them. Dr. Clouston, in his "Clinical Lectures on Mental Diseases," has described a form which he calls "Insanity of Bright's Disease." The symptoms assigned to it are of a more acute character than those noted at the Berbice Asylum. It has been asserted that general paralysis does not occur in Guiana, but Dr. Barnes has repeatedly seen cases, and Dr. Ireland notes one in a full-blooded negress of twenty years of age. "During life she showed all the characteristic mental and physical symptoms of the disease, the diagnosis of which was fully borne out by the post-mortem condition of the brain."

We have naturally preferred to notice those reports which deal with subjects of especial interest to our readers, but the



whole series is of an instructive character, and reflects credit upon the writers.

There are papers "On the Communicability of Yellow Fever," by Dr. J. S. Wallbridge; "On the Fertility of Negro Women," by Dr. E. D. Rowland; on "Dysentery in the Gold Diggings," by Dr. W. F. Laws; and on "Pathological Studies," by Dr. J. E. A. Ferguson.

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*An Introduction to Human Physiology.* By AUGUSTUS D. WALLER, M.D., Lecturer on Physiology at St. Mary's Hospital Medical School. London: Longmans, Green, and Co. 1891. Pp. 612.

Human physiology grows and enlarges its borders with so much rapidity that there is always a possibility that a new text-book will be able to justify its existence. Dr. Waller is at once an experienced teacher, familiar with the practical requirements of students, and an original and thoughtful investigator, enamoured of science for its own sake. He contrives to compromise between these two somewhat opposing points of view, and the result produces a very satisfactory impression. In the preface Dr. Waller insists on the importance for the student of "an acquaintance with at least the existence of frontier interests, and even a participation *de tactu* with the science at its growing surface." Many of these "frontier interests" here receive attention, while they are duly subordinated. At the same time, various other subjects usually included under human physiology (such as locomotion) are here either omitted or very briefly touched on. The volume is divided into two equal parts—"The Phenomena of Nutrition" and "The Phenomena of Excitation." This is an excellent broad grouping, but it involves the rather noticeable omission of all the phenomena connected with reproduction. Menstruation is unnoticed (except briefly in a short appendix on the origin and nutrition of the embryo), and the secretion of milk is considered in a paragraph thrust into the section on the salivary glands. Dr. Waller's explanation is that these matters belong to the obstetrician. It might be replied, however, that the eye also belongs to a specialist, yet it here receives attention in over fifty pages. Perhaps it would be a sounder defence to say that the student who has fully grasped certain aspects of physiology will be well able later on to take up any other aspects.

Dr. Waller's style is concise and clear-cut; his sentences are always very free from superfluous adipose tissue, and his brief discussions and summaries of complex questions are often most admirable. The concentration of his style, while it rarely involves obscurity, enables him to say much in little space. It may be doubted whether this concentrated brevity is always an advantage to the beginner, who may fail to catch points with which he is unfamiliar, and which are not hammered into him. But, as Dr. Waller would himself insist, physiology cannot be learnt from a book alone; it needs the vivifying and stimulating presence of a teacher and a practical laboratory.

The section devoted to the brain is somewhat brief (less than that devoted to the eye), but it covers a considerable amount of ground. In reference to cerebral localization, Dr. Waller concludes that "the balance of evidence is in favour of localization, but that the counter-evidence has shown that localization is not sharply defined, but blurred." He devotes to the question of psycho-physics more attention than is usually given; he also sums up judicially the great Helmholtz-Hering controversy, inclining somewhat to Hering's side. The book concludes with a section, rather slight in character, dealing with hypnosis.

The illustrations, chiefly of a diagrammatic character, are numerous and good. There can be little doubt that the volume will take a very high place among the hand-books of human physiology.

*Hypnotisme et Croyances Anciennes.* Par le Dr. L. R. REGNIER.  
Progrès Médical, Paris.

*Thérapeutique Suggestive, Son Mécanisme, Propriétés diverses.*  
*Hypnotisme Provoque et des états analogues.* Par le  
Dr. A. A. LIÉBAULT. Octave Doin, Paris.

*L'Hypnotisme, Ses rapports avec le droit et la Thérapeutique  
de la Suggestion Mentale.* Par ALBERT BONJEAN.

*Leçons Cliniques sur l'Hystérie et l'Hypnotisme faites à  
l'Hôpital St. André de Bordeaux.* Par A. PITRES, Prof.  
et Doyen de la Faculté de Médecine de Bordeaux,  
précédé d'une Lettre—Préface de M. le Prof. J. M.  
Charcot. Paris, Octave Doin. 1891.

The number of works on hypnotism steadily increases, and it is well to refer to the interesting book of Dr. Regnier if one wishes to trace the growth of the subject from the

most ancient down to the present time. The work is well worth perusal. As a historical sketch it is admirable, and is evidently the outcome of much reading and research. It is illustrated with numerous drawings of the condition of persons placed under hypnotic influence, with sketches from ancient Egyptian writings, representing the goddess Ramen in the form of a serpent, the symbol of abundance, with reprints from that extremely curious work, the "*Le Sabbat des Sorciers*," by Bourneville and Leteinturier, and others copied from various sources. A point which appears to us of much interest is the difference Dr. Regnier makes between what he calls the religious ecstasy of the fakirs and the condition of hypnosis, which we have seen and heard so much about within the last two or three years. He says, speaking of the induction of the state of ecstasy: "C'est la contemplation que pratiquent les initiés brahmanes, c'est à dire un tension extrême de l'esprit vers une idée fixe, tension dont l'immobilité des yeux n'est qu'un indice, par laquelle on arrive à cet état parfait," and he goes on to give the methods of assisting the production of the ecstatic state. These are much the same, however, as we employ to bring about hypnosis, and they briefly mean concentration of thought, and of the special senses until the power of attention wavers, and finally ends in the hypnotic state. Again the author says: "Souvent au sortir de son accès, l'extatique accuse une vigueur corporelle plus grande. C'est une prétention fréquente chez les fakirs. L'hypnose provoque toujours une fatigue marquée." This, in our experience, is incorrect, for the majority of those hypnotized awake from their induced slumber invigorated and refreshed.

Dr. Regnier concludes his work with a *resumé* of his experience of the circulation among hypnotized subjects. Tracings were taken by fixing the sphygmograph not on the radial, but on the carotid artery. Some of these tracings are given, and clearly demonstrate the different conditions of the circulation before, during, and after hypnosis. The last paragraph is strongly condemnatory of public exhibitions of hypnotism; it is worth reproduction: "Qu'il doive ou non être employé en thérapeutique, l'hypnotisme dans des mains maladroites ou malhonnêtes est dangereux—il faut donc interdire rigoureusement au public la libre disposition car, quel que soit l'usage qu'il en fera il ne peut être que funeste, ou tout au moins inutile à l'hypnotiseur, à l'hypnotisé, et aux spectateurs."

As an appendix to his book Dr. Regnier gives an "Index Bibliographique" of 12 pages. 1st. The historical works. 2nd. Works concerning animal magnetism. 3rd. Works relating especially to hypnotism. Of these there are no less than 140 different authors. 4th. Books which have treated of hypnotism in connection with other subjects. The name of Dr. Liébault, of Nancy, has become familiar to all who have studied the subject of suggestive therapeutics, for, in connection with Dr. Bernheim, he was the means of founding what is known as the school of Nancy in this connection. Dr. Bernheim, who holds the position of professor in the faculty of medicine at Nancy, in his well-known work, "A Treatise on the Nature and Uses of Hypnotism," gives to Dr. Liébault the credit of stimulating him to make the investigations which he has so ably recorded, and he freely acknowledges that he owed the knowledge of the methods he employed to induce the hypnotic condition and the production of certain incontestable therapeutic effects to the example and teaching of Liébault. In the work under our notice, Dr. Liébault treats of moral causes as the source of maladies, and as a means of their cure; he gives numerous interesting examples, showing how sudden cures have been effected, and explains them by the theory that it is the superabundance of attention on the part of a patient being suddenly called into play, some sudden and painful emotion breaking through an induced habit of restraint. His examples are not confined to physical ailments, but certain cases of mental disorder are also quoted where delusions were eradicated. He admits, however, the difficulty he experienced in dealing with the insane, for he says: "*Ainsi le plus grand nombre des formes de la folie, et principalement l'hypocondrie, résistent à l'influence par suggestion; et l'obstacle à la guérison que l'on rencontre, tient surtout à la difficulté qu'il y a de mettre ceux qui sont atteints de cette maladie dans le sommeil artificiel; leur esprit a comme perdu de son ressort, absorbés qu'ils sont, depuis longtemps, par des idées fixes morbides.*" And he adds, "*Nous avons de raisons qui nous font presumer que le pouvoir de la pensée est supérieur même à l'action des remèdes les plus héroïques.*" In Chapter IV. he treats of the act of inducing sleep and making suggestions. He believes the number of subjects who are somnambulists, *i.e.*, in whom hypnosis reaches its deepest form, is equal in both sexes, and that this peculiarity is hereditary. The greater part, however, stop at the stage



equal to the depth of their natural sleep. Chapter V., which takes up nearly half of the book, is devoted to "Contributions au traitement des maladies par l'action de la pensée sur l'organisme." This is subdivided into (a) maladies par manque d'excitation des nerfs sensitifs—deaf mutes and such like; (b) maladies par excès d'excitation des nerfs sensitif—headache, migraine, neuralgias, etc.; (c) maladies ou états morbides analogues au sommeil—insanity, dipsomania, convulsions; (d) maladies par trop peu ou trop d'excitation, affectant les nerfs et les organes en mouvement—nervous vomiting, the vomiting of pregnancy, chorea, stammering; (e) maladies par manque ou par excès d'excitation avec altérations diverses des liquides et des solides—anæmia, derangements of menstruation, hæmorrhage, constipation, acute articular rheumatism, etc., etc. This list will give the reader a fair idea of the range of the cases given by the author as being within the scope of suggestive therapeutics. The cases quoted are simply given as they present themselves to the writer, and there does not appear to be any attempt at exaggeration. The proof of the effects produced can best be found by personal investigation of the subject. Can such results be obtained by hypnotic suggestion in the hand of others, when other means have failed to relieve or effect a cure? As to the power of hypnotic suggestion to relieve pain there can be no doubt; and it would be advisable for those who are sufficiently interested in the subject as to read the book to try the effect for themselves. Dr. Liébault's clinique has been visited by many medical men from all parts of the world, and we have never heard a breath of suspicion cast upon his *bonâ fides*. His book is written in a simple, straightforward manner, and his successes are modestly recorded.

We shall resume our notice of these works in our next issue.

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*Ambulance Lectures on Home Nursing and Hygiene.* By SAM. OSBORN, F.R.C.S. H. K. Lewis. 1891.

This handy little book, arranged specially for the ambulance classes which Mr. Osborn has been in the habit of holding, is very appropriately noticed in our pages, for it gives very neatly all the ordinary general measures, surgical and medical, which the home nurse requires to know about; we believe that for the first part of the association nursing

training it will be found both easy and clear; the illustrations of bandages and the like greatly assist the learner.

The book is only 150 pages, and is divided into eight chapters, which include the following subjects: The sick-room; infection and disinfection; details of nursing; application of local remedies; bandaging; sick dietary; and practise questions.

The day has passed when developed Mrs. Gamps had charge of the insane. The physician needs nurses who can take the temperature, and can use their senses in the observation and recording of symptoms; for this the senses must be trained and the memory prepared. Such books as the one now noticed will be found useful for the junior nurses.

We presume that most of the seniors will have got beyond this, and will depend on the more elaborate books which have been issued for nurses; but we can recommend this book as trustworthy and useful.

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*Text-Book of the Principles and Practice of Medicine.* By the late Dr. HILTON FAGGE and Dr. PYE-SMITH. Third edition. J. and A. Churchill. 1891.

The first edition of the book only appeared in 1886, and this, the third, has already been called for by the exhaustion of the second. This is evidence alone sufficient of the esteem in which the text-book is held. Dr. Hilton Fagge unfortunately did not live to see the fruits of his life's work, but he is very fortunate in having such a loyal and capable colleague as Dr. Pye-Smith, who without slavishly following Fagge has still left all that is most characteristic of his style and work, while in every part developing and embellishing it.

It is constantly being said of asylum physicians that they do not maintain their position as physicians, but sink into a kind of commissary generals; this is true of some and is not to be wondered at, and we fancy that the general run of medical practitioner is not free from the tendency to rest on his earlier scientific acquirements, and adapt his treatment to his own experience.

We would most heartily recommend the volumes before us to the asylum physicians who wish not to fall out of step with the advance of medicine; we are satisfied that they will find no truer, safer, and more pleasant guide to what is new,

and none more satisfactory as a reminder of what is partly forgotten. The book is not a cram book, but is one in which the two sides of questions are fairly put, and much that is not only knowledge, but much that is suggestive and encouraging to future work will be found. The whole has been most carefully revised and in great part rewritten, there being much compression and condensation of some parts. We are glad to see that in this general medicine a chapter is devoted to insanity. This plan was started by Dr. Bristowe, who himself did the work in this. Dr. Savage has written the brief summary of mental medicine, giving the chief legal forms demanded by the new lunacy law. It is a good sign that general physicians see the need for treating the subject as part of their science, and we will say no more than that the asylum physician must not overlook his duty in studying general medicine.

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*"Heads, and what they tell us :"* Phrenological Recollections.

By W. PUGIN THORNTON. Illustrated by ELLEN WELBY.  
Sampson, Low, Marston, and Co. 1891.

This is only a shilling book, but it is unusually well got up, the illustrations being very good indeed; there are none of the bump charts, but there are heads and faces far away better than them, of the supposed types of mind or rather character. The book is chatty, and gives evidence that the author not only believes in phrenology, but acts upon his belief. He selects his servants, regardless of characters, on the shape of their heads; perhaps some of our superintendents will take lessons from him, and so engage their attendants.

We like the book because of its freshness and of its full assurance of faith. We still are not believers in phrenology, though we admit that there are certain co-relations between shape of head and character, but we cannot admit that anything like localization of faculties is possible from the outside; and the more we hear, the more are we in doubt as to the evident existence of anything like absolute independent faculties in the cortex itself. We are inclined to think we are a long way from certainty in the localizations of the simplest sensory and motor functions in the cortex, and we cannot admit that their complex associations, such as exist in language, are likely to be more readily discovered

by pure empiricism from without than by careful experiment on the brain itself. We do not believe, for instance, that philoprogenitiveness is an absolute faculty derived always from the same sources. That the function of reproduction has cortical representatives we admit, but that there is one little part of the brain concerned altogether in this, we doubt. In man the sense of sight is the chief inciter to love, while in the lower animals the incentive is through the nose, yet the function is the same. One man is a good linguist through his memory, another through special associative faculty, while another has special memory of signs, and thus is good at languages; we do not see how the possession of one type of head is to cover the various possible factors of the one faculty. But the book before us is interesting and worth reading. At the end there is an interesting illustration of the skull which was discovered in Canterbury Cathedral, and which was attributed to St. Thomas-à-Becket.

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*Subjective Noises in the Head and Ears: their Ætiology, Diagnosis and Treatment.* By H. MACNAUGHTON JONES, M.D. London: Baillière, Tindall, and Cox, 1891.

A paper read at the Annual Meeting of the British Medical Association at Birmingham, on the "Ætiology of Tinnitus," was the origin of this little book.

The mental physician is well aware that noises in the ear may be the starting point of auditory hallucinations. From this point of view a portion of this essay will prove interesting to him. Thus in one case reported, a lady fell into ill-health after marriage, became despondent about noises which she heard in her ear, and developed a delusion in regard to them. She screamed, and was with difficulty controlled. Weakness of mind followed, but her great idea was that this organ was the cause of her trouble. Dr. Ringrose Atkins, quoted by the author, has clearly expressed this relationship.

There is, of course, a large class of cases in which auditory hallucinations arise from disturbance of the psychosensorial centres, the aural apparatus being healthy; or, again, they may arise (and we have no doubt they frequently do so) from centric cerebral disorder, determined, in regard to their special character, by tinnitus aurium. Be the sequence what it may, it cannot but be of importance to



ascertain the condition of the ear, in order to remove, if possible, any mischief which may be seated there.

Although, therefore, a book of this kind is primarily intended for the otological practitioner, it will be seen that we are not travelling out of our record in pointing out the line at which it impinges on the clinical study of the insane. We are disposed to think that the attention of alienists might more frequently be directed than it is to the condition of the aural apparatus.

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*The Fire Protection of Hospitals for the Insane.* By L. H. PRINCE, M.D. Chicago: C. H. Blankley and Co. 1891.

The manual before us by the Resident Physician, "Bellevue Place," Balavia, Illinois, and formerly Assistant Physician at the famous Hospital for the Insane, Kankakee, cannot fail to be of great use to those who are in any way connected with the management of asylums. He deals with the faulty construction of buildings, the modes of lighting and heating them, as directly bearing upon the prevention of fire. He gives practical advice as to the best apparatus for extinguishing it when it occurs. He discourses on fire brigades and the drill, and concludes a most useful book by a chapter on the "Fighting of Fire." He quotes a passage from remarks of his former chief, Dr. Dewey, which is so forcible and true that we must reprint it: "I trust the time will come when a full equipment for fire-protection will be regarded as indispensable to every institution for the insane, and the necessary provision will be made to establish it in the same manner that provision is made for the ordinary expenses of each institution."

We strongly advise every asylum committee to obtain a copy of Dr. Prince's timely book.

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*The Pathology, Diagnosis, and Treatment of Intra-Cranial Growths.* By PHILIP COOMBS KNAPP, A.M., M.D. Boston, 1891.

The aptness of the quotation from Dante's "Purgatory," which Dr. Knapp chose as the motto under which he should compete for the Fiske prize, was in itself almost a sufficient reason for awarding him the laurels:—

" . . . Color che vanno  
Con cosa in capo non di lor saputa."—Purg. xii., 127.

Little did Dante think he should introduce a work on cerebral localization.

The essay is based on the records of 40 cases with autopsies. The plan is good, and Dr. Knapp possesses the gift of writing clearly. The chapter on special symptomatology occupies the chief place, and is followed by short, but useful, chapters on the diagnosis of the existence, site and nature of tumours—they are somewhat sketchy, however. Two interesting tables of the results of operative treatment, including 46 cases in which a tumour was removed and 26 in which there was *no removal* after trephining, conclude the book.

Of works on localization, however, we must confess that if they continue to multiply at the present rate we shall soon be unable to locate *them*.

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*Atlas of Clinical Medicine.* By BYROM BRAMWELL, M.D., F.R.C.P., F.R.S.E., Assistant Physician Edinburgh Royal Infirmary.

We welcome Part II. of Vol. I. of this important clinical work. Two diseases are specially considered, Addison's disease and Hodgkin's disease. Neither affection can be said to have immediate alienist affinities, yet the former trouble, illustrating, as it does, a condition of profound nervous prostration, will always be of interest to the student of "nerves" in its widest aspect. Moreover the strange fact of pigment formation, taken in connection with the nerve prostration of this disorder, and the known relationship of some forms of pigmentation to nervous manifestations adds to the interest of the disease. Both affections are beautifully illustrated.

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### *Ophthalmic Charts.*

We have received copies of the charts introduced recently by Mr. Frank Haydon. They are of two kinds, one designed for the record of appearances seen by the ophthalmoscope, in which the fundus is represented as a red ground with a central white circle for the optic disc, the other for noting the position of lesions in external eye diseases, and which contains outline diagrams of the front part of the eye and of an antero-posterior section of the globe.

We have on several occasions made use of the first

mentioned charts for the rough delineation of ophthalmoscopic appearances and have found them of real service. Even those gifted with a minimum of artistic skill can, with the aid of these charts and coloured pencils, easily produce a sketch of the fundus oculi, which, however crude, will recall the main features of the case, perhaps more accurately and certainly more rapidly than a somewhat lengthy description.

The charts are published by Messrs. Down Bros., who supply with them a printed sheet of instructions.

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*Annual of the Universal Medical Sciences.* Edited by C. E. SAJOUS, M.D., etc. 1891. Vol. II.

The section on mental diseases is again undertaken by Dr. Edward N. Brush, formerly of Philadelphia, but now medical superintendent of the recently opened asylum near Baltimore. This is alone a sufficient guarantee of the excellence of the retrospect of psychological medicine which is given. Such a record is of great interest and is extremely convenient for reference. We regret that overcrowded pages render it impossible for us to extend our review to greater length. In commending the manner in which Dr. Brush performs his task, we seize the opportunity to express our satisfaction that the institution above referred to has the great advantage of having for its first superintendent so able and experienced a physician.

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*The Man of Genius.* By CESARE LOMBROSO, Professor of Legal Medicine at the University of Turin. With illustrations. London: Walter Scott. 1891. "The Contemporary Science Series," by Havelock Ellis.

We must confine ourselves to simply drawing the attention of our readers to the English translation of this original work, by a remarkable man, although it is impossible to accord assent to all his conclusions. It now forms one of the excellent series edited by Mr. Ellis. Our brevity is not due to any lack of appreciation, but in consequence of the sufficient reason that we have already reviewed the work at length when it appeared in Italian and French. Our readers are referred to the "Journal of Mental Science" for October, 1890 (p. 551).

*On the Simulation of Hysteria by Organic Disease of the Nervous System.* By THOMAS BUZZARD, M.D., F.R.C.P. J. and A. Churchill. 1891.

In a small volume of about 100 pages, Dr. Buzzard treats of the above subject from an essentially clinical point of view. The substance of the work is based upon the presidential address delivered by him before the Neurological Society in 1890. Very special consideration is given to the subject of disseminated sclerosis, more particularly in regard to its simulation of hysteria. On p. 96 the author says: "There can be but little doubt that of all organic diseases of the nervous system, disseminated sclerosis in its early stages is that which is most commonly mistaken for hysteria." Truly this must undoubtedly be so when we learn that the shifting about of a state of powerlessness from one limb to another is not characteristic of hysteria, but rather of disseminated sclerosis, and that a like shifting about of a numbness, or sense of pins-and-needles, points also "with considerable distinctness to disseminated sclerosis." The difficulty of diagnosis becomes yet more increased when we consider what the author says on p. 52, viz., that the characteristic symptoms of disseminated sclerosis, *e.g.*, the tremor on voluntary movement; the spasticity of muscles, the nystagmus, the scanning articulation and the so-called apoplectiform seizures, may all be absent. A recent case which has come under our observation brings home to us the force of these remarks, yet at the same moment we are tempted to ask, must we not review our definition of organic disease, if instability of symptom is to be a mark of it? The book is well worth studying by alienists and others.

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### PART III.—PSYCHOLOGICAL RETROSPECT.

#### 1. *English Retrospect.*

##### *Asylum Reports for 1890.*

(Continued from Vol. XXXVII., p. 590.)

*Isle of Man.*—Various structural improvements have been effected. These include the construction of a billiard room. It is mentioned in Dr. Richardson's satisfactory report that an imbecile boy has been taught to plough and do other agricultural work, and is now working for his own living.

*Newcastle-upon-Tyne.*—A limited outbreak of typhoid fever



occurred, resulting in one death. The cause appeared to be the escape of sewer gas into the wards from the insufficiently sealed ends of old drains.

*Norfolk County.*—Six cases of typhoid fever and 20 of dysenteric diarrhœa occurred. This led to a thorough examination of the drainage, when some grave defects were discovered. Eight cases of erysipelas also occurred.

Dr. Thomson reports that Nonconformist services are now held in the recreation hall on Sunday afternoons for those patients who do not wish to attend the Church of England services. On an average 70 men and 40 women are present.

The wages of some of the charge attendants and nurses have been increased £2 12s. per annum. Dr. Thomson hopes that this increase may be extended to all in charge of a ward.

*Northampton. St. Andrew's Hospital.*—Although Mr. Bayley does not refer at length to any special subject in his report, it is quite evident this hospital continues to be directed with great success. The proposed improvements on the male side have been postponed.

*Northampton.*—The estate has been increased by the purchase of 53 acres at a cost of £3,020.

Scarlet fever broke out in the children's block. Fourteen patients and six nurses were stricken. The mode of infection was never discovered. One death occurred. Typhoid proved fatal in one case, and enteritis in two. The drainage was examined, but nothing faulty discovered.

After due instruction by one of the Assistant Medical Officers, 16 nurses received certificates from the St. John's Ambulance Association.

The Commissioners refer favourably to the arrangements made in this asylum for pensions. As it is well known and universally approved by asylum officers, we need not refer to it further.

*Northumberland.*—Various minor structural alterations have been carried out, but others of greater magnitude have not yet been taken in hand. These latter include the building of blocks containing w.c.'s, baths, etc.

For the better protection of the buildings from fire the apparatus is examined by an inspector from Messrs. Merryweather and Sons, and the staff drilled by him every three months. This appears to be a good arrangement.

A monthly celebration of mass is now provided for the Roman Catholic patients. The wages of the married attendants have been increased by £4 per annum.

It is reported that the establishment of an out-door department has been a comparative failure.

*Norwich. Borough.*—Private patients, paying a low rate of board, are now admitted to this asylum.

Lighting by electricity has been introduced into nearly the

whole building, and many structural and other improvements effected during the year.

The following remarks by Dr. Harris on the value of employment may be reproduced :—

With respect to the experimental workshop block for men, there cannot be a shadow of doubt in the mind of any observer who has watched the increased number of usefully employed patients that the time has arrived when proper provision should be made for patients anxious to employ themselves. I believe the time is not far off when it will be deemed wise and economical to provide women with workshops.

The census will undoubtedly show the necessity for this, especially in manufacturing districts where women are largely employed; but no census is necessary to prove the oft-told tale, "Satan finds some mischief still for idle hands to do," and I believe idleness begets idleness, and idleness destruction, and so on to the loss of hope, and then a patient may become a chronic lunatic and a life-long expense. I do not say employment will cure everybody, but rightly applied it cannot fail to do good.

Some patients now employed were formerly very destructive, and would soon lapse into their old ways and dirty habits but for legitimate occupation.

I am a thorough believer in occupation for sane and insane alike, and trust, when you decide on building workshops (which need not be erected all at once), the space and accommodation will be liberal in order that as large a number of patients and attendants as possible may be employed, and thus the result of gloomy hours of an idle and unprofitable day avoided. Only those who are constantly in the society of the insane can realize the blessings of healthy occupation, and it is not an infrequent occurrence for attendants to murmur at not having had a "turn out" with the working parties, this being preferred to taking out-door exercise with many of the, at present, unoccupied class.

Experience has taught that those attendants who employ themselves get their patients to work, and are the healthiest in mind and body, least irritable, and best fitted to have charge of the insane.

The winter months test the working of an asylum, the inability to provide necessary out-door change of scene and occupation for patients and attendants is then sorely felt, and is an unhealthy strain alike on weak and sound minds—workshops are then a boon. To the employed insane much good is done, and to the irritable additional elbow room and space in the then thinly occupied wards provided.

*Nottingham. Borough.*—To utilize the spare accommodation 110 patients have been admitted from the London asylums. Private patients are also admitted at 15s. per week.

Dr. Powell found it necessary to ask for further assistance on account of the work devolving on the medical staff by the increased number of patients, and by the operations of the new Lunacy Act. A clinical assistant was therefore appointed, and his services are very favourably spoken of.

*Nottingham. County.*—The Commissioners still urge the necessity of providing a new asylum, but no steps in this direction appear to have been taken by the Visitors.

An additional night attendant has been appointed on each side.

*Nottingham Lunatic Asylum.*—

In January, 1889, an assessment was made on the committee for Income Tax upon £1,000, under Schedule A., and also for Inhabited House Duty for the same amount. Mr. Henfield appealed against these assessments to the Local

Commissioners, who decided that the hospital was exempt from both assessments. From this decision the Surveyor of Taxes appealed to the Queen's Bench Division of the High Court of Justice. This appeal was heard by Baron Pollock and Mr. Justice Charles on February 5th and 6th, 1891, when the Judges confirmed the decision that the hospital is exempt.

*Oxford.*—Two male and two female attendants have been added to the staff. Further additions might be made with advantage.

*Perth Royal Asylum (1889).*—This hospital continues to exhibit every sign of successful management, and as a consequence its affairs present every aspect of prosperity.

There are many subjects mentioned in Dr. Urquhart's report to which we would like to direct attention, but this is impossible. Some of them have, we believe, been referred to in previous notices.

We hear from time to time of "asylum-made lunatics," and the strongly expressed idea that residence amongst the insane would shortly drive the strongest-minded mad. An asylum, of course, is by no means the best place for every insane person, and discrimination in treatment must begin before such a step is advised. It is, however, the first plunge into a mad world that is most keenly felt by the sensitive, even by those who, after a time, find a power of accommodation to surroundings—an anaesthesia of use-and-wont to round off the fictitious horrors of asylum life. But others, who are elated by mania or depressed by melancholia, are rendered in some measure oblivious of their environment. The selfishness of their disease, their extreme and constant concentration on their own fanciful life, causes, in many instances, an obtuseness of feeling, whether of mental or bodily pain. The man whose bladder, without obvious inconvenience, can hold four pints of urine (a recent experience of ours), or the man whose eternal damnation is, to him, an assured and ever-present fact, is not likely to be troubled by the lesser inconveniences of life in a lunatic asylum.

Such observations for long obscured the truer view, that enfeebled or morbid minds are undoubtedly to be influenced by their surroundings. It is now fully recognized that science and art must be laid under contribution to brighten, to interest, to regulate, to cure. We seek to strike chords of mind responding to the sense of colour, proportion, sight—to harmonize faculties jangled out of tune. Therefore it becomes necessary to devote so much of valuable time to the problems of asylum architecture, the occupations and amusements of the patients, as well as to questions of purely medical treatment and microscopic pathology. It is not given to everyone to be an original investigator or a philosophic commentator, although it is within the province of all to patiently observe and record—to add a stone to the monumental edifice of science. Still more is it the duty of each to succour the sick and care for those committed to his charge, and nothing is common or unclean that falls to him to do if it but come within the scope of his duty.

The arrangements for meals have been much improved. All, except the infirm and excited, get their food away from the wards, and the attendants and nurses have their meals in their mess rooms. The proportion of married attendants has been increased, and it is proposed to erect cottages for them in the neighbourhood of the asylum. The amount of leave has been increased.

The inducements that can be held out to those capable of the arduous and responsible work of nursing the insane are never in danger of being too great. In former times they were but little more considered than the insane themselves; but of late it is recognized that at least we should have the insane as well nursed as the patients in ordinary hospitals, and efforts are made to secure this in the

asylums of the country generally. By reducing the hours of duty, by affording time for relaxation and opportunities for self-improvement, by increased pay and improved quarters we hope to retain the services of the most suitable.

Great attention continues to be devoted to the occupation of the patients, male and female.\*

*Perth Royal Asylum (1890).*—Another satisfactory report. In the following passage Dr. Urquhart maintains the importance of heredity over and above the surroundings of the patient whatever these may be.

The causes of insanity have been studied with care and attention, and it yearly becomes more manifest that some inherited constitutional tendency to the more obvious forms of mental disease, or a mere nervous instability, is a fundamental necessity in the evolution of these disorders. In one case only did a mental (moral) cause, without ascertainable physical cause, produce insanity. It would almost seem that the cares and troubles of mortal life are impotent to overturn a well-balanced brain. A certain inherited vice, or acquired pathological habit, is apparently the prime factor in producing mental disease. The heredity may be paternal or maternal, and may show itself in the insanity of collaterals or descendants. It may be the heredity of alcoholism, or epilepsy, or less grave neurotic troubles. Or, again, the nervous instability may have been acquired by habits of intemperance or vicious excesses. In such cases calamity or other undue excitement merely gives the last impetus to an already over-burdened nervous system, and so it comes about that a bank failure or a wave of emotional religion leaves its mark on asylum statistics.

*Salop and Montgomery.*—At the suggestion of Dr. Strange the Visitors agreed to increase the leave of the attendants and nurses and to provide means for their rational amusement.

By an increase of the staff it is now possible to exercise the patients in greater numbers and more frequently beyond the asylum grounds. This is a most important improvement, and might be advantageously followed in other asylums. The whole difficulty is one of cost—it is therefore easily curable.

*Suffolk (1889).*—Dr. Eager reports that though there has been a decided improvement in the health of the inhabitants as compared with past years, no less than 25 cases of dysentery and eight cases of typhoid fever occurred during the year, besides 23 cases of diarrhoea of a less severe type; two of erysipelas and one of severe tonsillitis. It is satisfactory to learn that the provision of a supply of wholesome water has at last been taken in hand. Some of the sanitary arrangements have been improved, and much has been done to improve the older parts of the buildings.

*Somerset and Bath.*—It became necessary to discuss how to provide for the ever-increasing number of patients, and it was decided to erect another asylum, such asylum to be in the western part of the county.

\* An indication of the healthy activity which continues to pervade this Institution is the appearance of a new series of the Quarterly Magazine, bearing the title "Excelsior." It is, as we should expect it to be, æsthetic in form, and we wish it every success.



Dr. Wade's report is chiefly devoted to a discussion of the same subject.

*Warwick.*—The new sanitary works are in progress, and are under the superintendence of Mr. Rogers Field. The mortality was high, and included deaths from typhoid, etc. Grave defects have been discovered in the ventilation. When these have been rectified, the number of deaths due to lung disease will no doubt diminish.

Dr. Miller speaks favourably of the training of attendants. Lectures in "First Aid" have been delivered, and some of the staff have sent in their names as candidates for examination.

The estate has been increased by the purchase of 20 acres of land.

The heating of the wards has been improved by the employment of a night stoker. This is a matter too much neglected in some asylums. No doubt it is expensive to continue artificial heating during the winter months, but this is no reason why so desirable an arrangement should not be carried out in every asylum. Dr. Miller says that since he introduced this method the night temperature in the wards has never been below 50 degrees, and is generally from 55 to 60 degrees, whereas previously it frequently was as low as 40 degrees; and in the early mornings, when the patients were getting up, the cold was a source of great discomfort, besides being injurious to the health of the old and debilitated.

A superintendent's clerk has been appointed. Besides assisting with the superintendent's correspondence, he enters nearly all the notes in the case books, which have then only to be signed by the medical staff. Probably a clinical clerk would be more convenient for the medical work.

It is hoped that the new hospital may be ready for the reception of patients during the year.

*Worford House.*—It is reported that substantial progress has been made with the improvements begun in 1889. During the last three years forty acres have been added to the estate at a cost of about £10,000.

Perkins' system of heating by means of hot water circulating at a high pressure was in use during the winter. Dr. Deas speaks in the highest terms of its efficiency.

Concerning transfers, Dr. Deas says:—

Eight of those admitted were brought from other institutions, and had been under care for several years. Several of those have improved very considerably, two to so marked an extent that recovery seems not improbable. The effects of change of scene and surroundings in promoting and restoring health are well recognized in bodily ailments, and also in the early stages of certain forms of brain trouble; but the value of similar change in cases of insanity, which have of necessity been placed in asylums, and which are apparently becoming chronic and hopeless, is not, I think, sufficiently recognized and acted on.

*York Retreat.*—A large amount of benevolent work is accom-

plished here. During the year 46 patients received all the care and comfort of this institution for the extremely low charge of 10s. per week; and in 88 cases the sum paid was less than the actual cost.

Various structural improvements have been effected during the year. A villa residence is nearly ready for occupation. This building is to be lighted by electricity, and arrangements have been made for extending the same system to the other parts of the building.

*Wilts (1889).*—The accommodation has been increased by the construction of two dormitories of 25 beds each. A hospital for infectious diseases has been built at a total cost of £2,581 17s. 7d.

The committee entertain some doubt as to whether or no its power of granting pensions has been taken away by a resolution of the County Council.

Dr. Bowes is of opinion that much relief would be afforded to the asylum if the Boards of Guardians would more readily co-operate with the Asylum Committee, by encouraging the removal of harmless and incurable cases to workhouses.

*Berks.*—The new irrigation works are reported to be working well, and it is believed that a wise course was adopted in removing the sewage to a piece of ground more remote from the asylum.

Five cases of typhoid fever occurred during the year. Further steps have been taken to improve the sanitary condition.

Concerning the supervision of suicidal cases Dr. Douty makes remarks which we most highly commend:—

It seems only fair to asylum nurses and attendants that I should call attention sometimes to the numerous attempts at suicide in which a fatal result is averted. Hard and foolish things are publicly said and written about asylum nurses and attendants when, as must be the case from time to time, an attempt at suicide is successful; the public, however, have no knowledge of the frequency of the attempts frustrated in an asylum, or they would cease to express surprise at the occasional fatalities. The whole question of the management of suicidal patients is one which causes us more anxious care perhaps than any other, and hence this special reference to it. As you are probably aware, "caution tickets" are issued with all cases known to be actively suicidal. These tickets are kept on a file, and every nurse or attendant taking duty in any ward has to sign his or her name upon each ticket before commencing duty. All cases in which such tickets are issued receive extra supervision; this, however, can only be of a general and not of a special nature; to make it special would require an enormous increase of the nursing staff. Our plan, therefore, is to obtain a medium amount of supervision for suicidals, and not to allow any fear of fatalities to deter us from allowing such patients to go for walks, to employ themselves with the mechanics, upon the lawn, or in the garden and grounds, or from attending entertainments, etc. Such things all tend to vary the monotony of asylum life, and to improve the physical condition of the patients, although naturally each is attended with opportunities for escape and for suicide. I confess I would rather run such risks, as I do daily, than attempt to render the occurrence of suicide an impossibility. The knowledge on the part of a patient that we are beginning to trust him is, as patients have often told me, a powerful stimulant to cheerfulness and self-reliance; I therefore take the responsibility of withdrawing suicidal caution tickets as

soon after the admission of each case as appears to me to be possible; and I aim at having in each ward a minimum number of these tickets, because I think that a familiarity with a large number of them must produce, to a certain extent, a contempt for their individual importance.

*Worcester.*—It has been decided to provide at once accommodation for 140 male patients. When occasion requires the same will be done for 140 women. This will bring up the total accommodation to 1,200 beds, beyond which it is not considered advisable to go. The water supply continues to give much trouble. No case of typhoid has occurred during the year. A Roman Catholic chaplain has been appointed.

*Devon.*—Both divisions of the building are much overcrowded. A block for about 50 male patients has been completed, and one for females is progressing rapidly.

The Commissioners suggest that the number of attendants and nurses should be increased, and that a third assistant medical officer should be appointed.

Dr. Saunders reports that a markedly increased number of melancholic and determinedly suicidal patients was admitted during the year.

*Hull.*—The wages of the attendants and nurses have been increased, as has also the amount of leave of absence.

Dr. Merson's report is largely devoted to a consideration of the circumstances which influence the death-rate in asylums. His remarks are full of interest, but are too long for reproduction, and do not admit of curtailment.

*Cheshire. Chester.*—A Roman Catholic chaplain has been appointed at a salary of £60.

An electric tell-tale clock is now in use for testing the vigilance of the night attendants. It is reported to act satisfactorily. The recovery rate was unusually high—57.63 per cent. on the admissions, transfers being excluded.

*Eastern Counties' Asylum for Idiots and Imbeciles.*—From Dr. Roberts' report it would appear that the general health of the inmates had not been very satisfactory during the year. Ten of the sixteen deaths were due to tubercle. Two cases of typhoid fever, two of septicæmia, and one of erysipelas occurred. Defects in the drainage were detected, and at once rectified.

*Roxburgh, Berwick, and Selkirk.*—Further improvements have been effected in the sewage drains outside the asylum buildings, the majority of which have been overhauled, trapped, and ventilated. The internal sanitary arrangements, however, have been reported by the Edinburgh Sanitary Protection Association to be in an unsatisfactory condition, and the Board are taking the necessary steps for their thorough rectification.

*Leicester. Borough.*—The Nonconformist Evangelical ministers of Leicester having volunteered to conduct a service each week at the asylum, the offer was thankfully accepted.

A new wing on the female side has been occupied. It contains a dormitory, 58 beds for epileptic patients on the ground floor, with a large day room upstairs. Twenty-three single rooms have been provided.

The following paragraphs from Dr. Finch's report are of interest:—

Notwithstanding that the population of Leicester has increased during the last ten years from 123,000 to 142,000, it is a remarkable fact that the number of patients admitted from the Borough of Leicester has not only not increased in proportion to the population, but has absolutely diminished during the last five years, as the subjoined table will show:—

1881	...	...	...	...	103
1882	...	...	...	...	86
1883	...	...	...	...	104
1884	...	...	...	...	83
1885	...	...	...	...	87
1886	...	...	...	...	81
1887	...	...	...	...	67
1888	...	...	...	...	72
1889	...	...	...	...	67
1890	...	...	...	...	74

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824

From some points of view this diminution is very satisfactory, though somewhat difficult to account for. I think, however, having regard to the fact that there were 17 cases of suicide in Leicester last year, it is very doubtful whether more patients might not have been admitted with advantage to themselves if their mental condition had been earlier recognized.

*Ennis.*—Twenty-one male patients were transferred to work-houses, thus affording sufficient accommodation for the treatment of recent cases.

*Argyll and Bute.*—Several important improvements have been effected in the kitchen, the supply of hot water for baths and the heating of the wards.

*Dundee.*—Dr. Rorie continues to devote much care to the training of his nurses and attendants.

The proposals of the London County Council to establish an asylum on new lines have been discussed *ad nauseam*. We must, therefore, reproduce only Dr. Rorie's concluding remarks:—

The past thus affords ample evidence of steady and satisfactory progress, and, above all, of confidence in medical treatment, and this leads us to the second consideration, namely, what further steps can be taken to keep the asylum abreast of the continued advances of medical science, for an institution such as ours cannot remain stationary, when it ceases to advance it begins to retrograde; and here two problems have of late years received much, and deserve further, attention, but to which we can refer only briefly. In the first place, the question has arisen whether asylums, as at present constituted, and the valuable materials accumulating in their case-books, might not be more thoroughly utilized and rendered more available than they are for clinical instruction and educational purposes. In this direction progress has already, to a certain extent, been made in this asylum in the more extended medical records and the addition of a clinical assistant to the medical staff. It is satisfactory to be able to report that the latter appointment has been so much appreciated that during



the past year four gentlemen have availed themselves of the opportunities thus afforded, and there is little doubt that the number of such appointments might be increased with advantage. Greater facilities for the study of insanity would thus be afforded, and increased benefit would result to the patients from the more careful consideration of the individual cases which would be received. The other problem is that of the better training and higher education of the nurses and attendants, etc., etc.

*Earlswood.*—It is Dr. Jones's belief that were the work carried on at Earlswood better known to the public, the State would soon be persuaded to see the necessity of providing suitable and proper homes for the poorer classes of imbeciles who are disqualified from or are unable to gain admission there.

The death-rate was unusually small. This is partially attributed to the introduction of additional steam radiators into the section for infants.

*Enniscorthy.*—On account of the increased number of patients resident it has been necessary to add one female and two male attendants to the staff. The governors have under consideration an increase of wages. This, if approved by the inspectors and sanctioned by the Privy Council, it is hoped will attract a better class of applicants, and retain the tried, experienced, and efficient hands in the service.

*Exeter.*—The want of a suitable boundary walk is much felt. It is noted that only 49 men and 24 women walk beyond the asylum grounds once a week, and only 13 men and no women daily beyond the airing-courts.

*Ipswich.*—The staff has been increased by the addition of one nurse. It is still small. No fewer than 17 deaths, out of a total of 36, were due to phthisis.

*Kilkenny.*—This asylum is overcrowded. Many structural alterations and additions are required to bring it up to modern requirements. The farm consists of 26 acres only. The number of attendants is inadequate. During the day there are ten male attendants in charge of 176 patients, and seven nurses for 148 patients. The rate of wages appears to be very low.

*Lancashire. Rainhill.*—The record of work accomplished during the year or still in progress justifies the remark of the Commissioners:—

We were well satisfied that there is no standstill in the management of this asylum after we had inspected it throughout.

A more liberal rate of pay for the attendants has been adopted, and has occasioned much satisfaction.

Dr. Wigglesworth says:—

Next to heredity there is no more frequent cause of insanity than over-indulgence in alcoholic liquors. The two causes are, indeed, very frequently associated. Out of 357 male and female cases in which reliable personal histories were obtained, drink was the cause assigned in 128 instances, a percentage of 35·85 (males, 42·85; females, 30·54). Unfortunately the evils of drink do not end with the individual, but are often passed on to the offspring,

who thus have a terrible curse laid upon them on account of the sins of their progenitors. In not a few cases the only cause which could be detected for the patient's insanity was the intemperance of the parents; thus this was so in 28 out of 186 female cases. The influence of the habits of one generation in moulding the character of the next one is probably nowhere more clearly shown than in such instances as these. Although drunkards are not generally regarded as insane, it is a question whether the habitual tippler might not, with advantage, be considered an irresponsible being, and treated as such. On the other hand, insane persons may themselves beget children who become dipsomaniacs; another fact which might lead one to consider habitual intemperance as a species of insanity.

*Lancashire. Whittingham.*—The estate has been increased by the purchase of 186 acres. The total acreage is now 516, of which 412 are freehold, and 104 leasehold.

A pathologist has been appointed. As the time for providing further asylum accommodation has arrived, Dr. Wallis, in his report, explains to his visitors how this should be effected. He details the difficulties and drawbacks inseparable from such a huge establishment, and though he gives ample credit to Mr. Holland, the designer of the asylum, he clearly shows that the structural arrangements for the treatment of recent cases are defective. He, therefore, expresses his firm conviction that

The erection of an acute hospital block, with not less than four suitable subdivisions on either side, together with the necessary offices, laboratory, and officers' rooms, is requisite as a complementary addition to supply the deficiencies on which I have been compelled to enlarge, and that such an addition would make this asylum in every respect one of the most complete and finest public hospitals for the insane in the United Kingdom.

(To be concluded.)

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## 2. *American Retrospect.*

By FLETCHER BEACH, M.B., F.R.C.P.

*American Journal of Insanity*, April, 1891.

*Alienist and Neurologist*, January, 1891.

*Journal of Nervous and Mental Diseases*, January, 1891.

*Proceedings of the Annual Congress of the National Prison Association of the United States* for 1889.

The "American Journal of Insanity" opens with the continuation of an article entitled "The Mechanism of Insanity," by Edward Cowles, M.D. In the observation of the phenomena which result from putting the normal mechanism into use, manifestations of the regular operation of forces and conditions that work under certain physiological laws constantly appear. These laws are important, not only in the development of the human organism, but are potent in evolving and fixing disordered activities when once disorder is begun. He treats of the law of habit, the

law of association, inhibition, the energy of muscle and nerve, and fatigue of the normal mechanism, and draws certain conclusions. There is no doubt that in the human body, in a healthy condition, the balance of waste and repair is maintained, and by the removal of waste products and the supply of nutritive material a healthy activity is sustained. Four factors, two positive and two negative, possibly operate in producing fatigue and the graver degree of exhaustion. Divergences from the normal in the functions of the mental mechanism may be clinically observed, and it is possible to discriminate between the influence of fatigue and the effect of toxic substances in producing conditions of exhaustion and disorder of psychical processes.

"The so-called Motor Area of the Cortex" is the title of a paper read by Dr. Edward B. Lane before the New England Psychological Society. It has been customary to speak of the motor and sensory regions of the brain or of the cortex, and the opponents of the motor theory seem to be yet in the minority both among physiologists and psychologists. In England, Bastian stands almost alone in his position that the so-called motor region is as purely sensory as any part of the cortex. The facts resulting from laboratory experiment are admitted by all, but the conclusions drawn from them are widely different; we must look to clinical study and pathological research to confirm what we know of human cerebral physiology. The author ranges himself on Bastian's side, and refers to speech disturbances as illustrating his views. It is known that stimulation of a sensory centre, the occipital lobe, the centre for vision, is followed by movements of the eyes and head, and he is of opinion that if we accept the Rolandic ideal of the area being a sensory one, we have a much simpler view of the physiology of the cortex, and do no violence to accepted facts in physiology and clinical medicine. Reference is made to a paper by Tamburini on "Motor Hallucinations," which the author thinks clearly illustrative of the theory of the sensory nature of the so-called motor area.

"The Importance of Systematic Co-operation in Study and Research among Pathologists in American Hospitals for the Insane," by Dr. W. P. Spratling, is an important contribution. It is an appeal to the pathologists of the American asylums to form such an association, and details the advantages which would be gained. There would be a free interchange of specimens in all shapes, and an exchange of ideas, methods, and discoveries among the members. Certain uniform methods in carrying on pathological work would naturally result, but at the same time such uniformity should not debar the member from prosecuting his studies in any direction he may wish, or from recording facts and phenomena as a result of his labour. More exhaustive study could be given to every class of insanity coming under observation, and each member might select, or be given, some type of insanity to

which he should devote his special attention. Much study should be devoted to recent and curable cases, as conclusions of practical value cannot be drawn from the post-mortem appearances of the brain in chronic cases, such as dementia, which may not have altered in character for years. It is very desirable that such an association should be formed, and it is a matter of regret that at present so few pathologists are to be found in English asylums.

This number of the Journal also contains Dr. Howden's scheme for a pathological index and a translation of a report by Dr. Giuseppi Seppili on "The Therapeusis of Mental Diseases by means of Hypnotic Suggestion." A commission had been appointed to consider the question, and, after making various experiments, came to the conclusion that although hypnotic suggestion was not useful in mental diseases, it succeeds most readily in the hysterical and epileptic. Conclusions of the same character have been arrived at in this country, but the enquiry must be continued.

"Insanity in the Coloured Race in the United States," by Dr. Witmer, appears in the "Alienist and Neurologist." The Government Hospital for the Insane at Washington, which was opened in 1855, had treated fifty-eight coloured patients during a period of seven years and a half, and there were twenty-one remaining under treatment at the close of that period. According to the census of 1860 the 766 coloured people known to be insane were distributed among the several States, and the slaves were specially provided for in separate cottages, being under the care of the physician specially appointed by the owner to look after the bodily ailments of the slaves. The most eventful period in the history of the recently-liberated people was that following the cessation of hostilities after the Civil War. There is known to have been an increase of insanity at that time, but no separate provision was made except in the State of Ohio, in 1866, by the late Dr. Langdon, then superintendent of the well-organized hospital for the insane for Hamilton county. The census of 1870, which is known to be defective, reported only 1,822 as insane, but that of 1880 gave 6,157 out of a total coloured population of 6,580,793. This great increase in the number of the coloured insane excited an interest among those whose duty it was to provide for them, and from this time onwards the causes of insanity in the coloured race, their susceptibility to the disease, and the results of treatment were fully treated in the annual reports of the institutions where those patients were resident. The author believes that the types of insanity are essentially the same in white and coloured people. Mania is common, but melancholia is not often seen, as the friends of the patient attribute the mental disturbance to evil spirits, and while he is being doctored for this he either dies or passes into a state of dementia. The influence of heredity, it appears, plays little part in the production of the disease, and suicidal tendencies are uncommon, but paralytic dementia is well defined, although the



delusions of grandeur are not so defined as in the white race. As to the relative curability in the two races, Dr. Witmer believes that where the circumstances are favourable the results of treatment will be the same in both.

Dr. Kiernan, of Chicago, has an interesting paper on "The Evolution of Delusions from Imperative Conceptions," which had been read before the Chicago Academy of Medicine. Reference is made to Dr. Hack Tuke's view that while imperative conceptions frequently occur in persons with an insane diathesis, this is not necessarily a factor. The essential feature of the imperative conception is "its recognition as an abnormality by its victims, and its relative frequency as compared with other abnormal mental manifestations." The author is strongly impressed with the intimate relation between this phenomena and delusions, and cites cases in support of his view. According to Laségue the imperative conception becomes a delusion in the following manner:—The patient has many ideas; the origin of some of these he recognizes, of others he does not. The consequence is that he has two individualities, "one of which is himself, and the other is a 'he' which is not himself." The latter commands, and the patient cannot free himself from the parasite. Something or someone speaks to him, and controls his thoughts and imposes on him its will. Auditory hallucinations form a communication between his thoughts and the parasite. Cases are on record where patients, who at first recognized the absurd nature of their ideas, gradually began to consider the possibility of these being produced by some enemy. In minds otherwise healthy the conception disappears with improved health, but in states of exhaustion true impulsive insanity may result. The prognosis depends upon the neuropathic state of the patient. As a rule it is not favourable, but still the patient is considered sane by those with whom he associates. Frequent relapses, however, tend to weaken the mental condition and predispose to delusion.

"The Journal of Nervous and Mental Disease" has an article by Dr. E. B. Fisher on "Syphilis of the Nervous System." The author divides syphilitic disease of the brain into three classes, viz., "Those involving the cranial bones, the brain and its meninges, and the cerebral vessels." In the majority of cases of cerebral syphilis the meninges are involved, and the base is said to be more often affected than the convex surface. The pathology of syphilis of the cord is the same as that of the brain, and in both cases there may be endarteritis independent of meningeal affection. No part of the nervous system escapes, and the diagnosis of the disease rests upon the multiplicity of symptoms, which disappear and reappear in the various stages. Headache, arousing the patient from sleep at night, is common; sometimes there is mania, and the patient is sent to an asylum. Somnolence is not uncommon, and this condition, combined with loss of

memory, apathy, and affection of the third or optic nerves may be considered diagnostic of syphilis. The disease is most often situated in the arteries, and, according to the author, the morbid anatomy closely resembles non-syphilitic general paralysis. Ptosis, diplopia, inequality of the pupils, with no history of a blow, as a rule indicates cerebral syphilis. Syphilitic disease of the vertebræ is rare, but meningitis is frequent, and is usually diffused. The symptoms may be divided into those which affect the meninges, the cord, and the motor and sensory nerve roots. Dr. Fisher closes his paper by referring to specific affection of the peripheral nerves.

"Aural vertigo" (Menière's disease?) is the title of a paper read by Dr. Harrison Mettler before the Philadelphia Neurological Society. Dr. Mettler believes that the name aural vertigo is a misleading one, as aural symptoms are not necessarily indicative of disease of the ear. A case is related at length which illustrates the author's views. Clinical evidence shows that the semi-circular canals alone do not subserve the maintenance of equilibrium. "The principal factors in the preservation of equilibrium are consciousness and normal sense impressions." Consciousness is greatly obscured at the height of an attack of vertigo, but is never actually lost; the two causes of the disease are disturbance of the cerebral centres which make up consciousness, and of the peripheral sensori-motor apparatus which is manifested through muscular sense. The views of Spitzka and Starr are referred to, and the author concludes that the centre of equilibrium must not be looked for in any particular part of the brain, "but in the harmonious action of the various sensory and motor centres upon one another." The views of Menière, Knapp, and Gowers are examined in detail, the experiments of Steiner and Sewell on the semi-circular canals of the shark are considered, and it is noted that Boettcher and Baginsky conclude that the cause of the rotation of the head in Flourens and Goltz's experiments was injury done to the brain, and not to the semi-circular canals. Dr. Mettler is of opinion that the source of irritation in Menière's disease may sometimes be in the semi-circular canals, but gives several reasons why the immediate cause of the vertigo cannot be there.

The National Prison Association has been in operation for some years with the twofold object of repressing crime and improving the condition of the prisoners. A sketch of the present condition of prison reform is given in the preface to the book, which gives the proceedings of the Congress of 1889. The Bertillon system for the registration and identification of criminals has been adopted by the Wardens' Association, of which Captain Nicholson is President. The annual address was given by President Hayes, who touched upon various subjects, the most important of which were indifference as to the condition of the convict, the means of dealing with the hardened criminal, and the best mode of reform. The

religious aspect of the prison question was discussed, and it was shown that the two great principles—severity and goodness—have to be reconciled in dealing with prisoners. One of the speakers was of opinion that the best industries should be cultivated in prison, and that the inmates should be “instructed in the finest arts, the profoundest sciences, as well as the coarser industries”—rather a Utopian idea from the English point of view. According to General Brinkerhoff crime is increasing year by year in the United States. The census for the past forty years shows that it has doubled every decade, out of proportion to the population. A paper was read upon the “Identification of Criminals” by Charles E. Felton, Superintendent of the House of Correction, Chicago, Illinois, who advocated a uniform method for the identification of persons previously convicted of crime. A knowledge of the ancestry and environments of prisoners would aid the superintendent in classifying and determining the treatment in each individual case, so that if the prisoner will not himself reform he shall be prevented from interfering with the progress that may be made by others. The Act for the Identification of Habitual Criminals, passed by the State of Illinois, is referred to, and a scheme for the anthropometric description of prisoners is fully described. The Ohio Parole Law is discussed by Mr. Smead, and the results of the system, which has been in operation for four years, are given. From the records we find that during that time 535 prisoners have been paroled, of whom 299 were discharged at the expiration of the parole, 841 were still on parole, 40 were sent back for violating it, 46 were delinquents, and two refused to accept it. Many letters from the recipients of this benevolent law were read. “What to do with Recidivists” is the title of a paper by R. Brinkerhoff. A recidivist is “one who, having been convicted of one offence, and having served his term in prison commits another offence, and is recommitted.” They are chronic criminals, and in the United States amount to 30 per cent. of all prisoners. The great mass of them are chronic drunkards who go to the workhouse to become sober and recuperate for another debauch. Cumulative sentences, and then the intermediate sentence, with privilege of parole upon satisfactory evidence of reformation, seem to be the remedy. Interesting papers on “Some Peculiarities of Criminals,” on “Punishment of Juvenile Offenders,” on “Life Prisoners,” and on many other subjects were read. The Congress closed after being five days in session.

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3. *Therapeutic Retrospect.*

By HARRINGTON SAINSBURY, M.D.

*Trional and Tetronal in Mental Affections.* ("Therap. Monatsh.," October, 1891.)

In the above journal Dr. Ernst Schultze reports the results of his trials with these two substances. His object is to compare their action with that of the allied compound sulphonal. All these three are built up on the same type—they are all methanes. They differ, however, in the number of ethyl groupings in their respective molecules; thus there are two ethyl groupings in sulphonal, three in trional, and four in tetronal, and for those interested in the relationship between chemical structure and pharmacological action there is much interest in the comparison of these bodies. Kast and Baumann had asserted that the soporific action of sulphonal belonged to the ethyl groups, and that accordingly trional and tetronal would be found more active than sulphonal because richer in these groups. Their assertions were based on experiments on animals. Barth and Rumpel next examined trional and tetronal clinically, and though they found them excellent hypnotics, they were not able to sustain Kast and Baumann's contention of a distinct superiority over sulphonal.

The trional and tetronal employed by Schultze were obtained from the firm F. Bayer and Co., Eberfeld. Trional occurs in the form of glistening tabular crystals melting at 76° C., soluble in 320 parts of water at the ordinary temperature, freely soluble in alcohol and ether. The watery solution has a distinctly bitter taste. Tetronal crystallizes out in similar form; the melting point of the crystals is 85° C. It dissolves in 450 parts of cold water, freely in alcohol, moderately freely in ether. It has a camphoraceous and bitter taste.

In all 15,500 grains of trional and 10,850 grains of tetronal were used in doses varying from 15-60 grains. These doses were administered as powders, either in a large quantity of warm water, or at times in soup, and about half-an-hour before bedtime. Seventy-six cases of mental affection were treated; these comprised 20 cases of mania, 15 of general paralysis, eight of paranoia, 16 of melancholia, and 17 of feeble-mindedness with excitement.

For simplicity's sake mania and general paralysis are taken together, since the indications in these two affections were very similar. It was found that trional acted with certainty as a soporific in a mild case of mania, and in two cases of general paralysis, but that in maniacal cases with great excitement it was exceptional to obtain sleep, though a considerable diminution



of the unrest was effected. In those cases where sleep was obtained the dose was large, 45-60 grains, and trional was always more efficient than tetronal. Endeavour was also made to discover if any advantage resulted from a divided dose given at intervals, *e.g.*, 15 grains thrice daily, but none such was witnessed. Perhaps some advantage followed the dosage of 30 grains morning and evening; six patients were submitted to this method. Trional and tetronal, according to the results in mania and general paralysis, are not drugs which enforce sleep, but which induce or predispose to sleep, and their effect is the more striking the more feeble-minded the patient, or the less recent the excitement. In three cases of general paralysis and one of mania, sleep was never obtained by either drug, but in these cases sulphonal was equally ineffectual. Under the influence of the morning and evening dosage a troublesome patient became much more manageable.

In six out of eight cases of paranoia with marked hallucinations very decided benefit was obtained, especially with trional. In the cases of feeble-mindedness with excitement, good results, on the whole, were obtained. In two cases tetronal was more effectual than trional.

Lastly, in melancholia, with sleeplessness, trional and tetronal proved satisfactory, and gave, in general, from six to eight hours' sleep. One case, however, was wholly intractable, and another case, in which sulphonal in 30 grain dose caused, almost invariably, sleep, resisted both trional and tetronal.

Dr. Schultze further refers to four cases of sleeplessness from overwrought nerves in persons otherwise healthy. Doses of 15 grains of trional proved generally efficient in these cases.

The effects of suggestion in such of these cases as were possessed of sufficient intelligence to be open to suggestion were eliminated by controlling the results by occasional substitutions of an indifferent white powder in place of the hypnotic.

In comparing together sulphonal and these other sulphones, Schultze remarks that in three cases sulphonal failed, whilst trional in the same dose, or in smaller dose, acted efficiently. Again, hallucinations were not infrequently complained of during the use of sulphonal, whilst, on the other hand, trional in 10 cases, with marked hallucinations, appeared to exert a lessening effect upon the hallucinations.

Lastly, delayed action, common enough with sulphonal, was not observed for either trional or tetronal, sleep setting in, if at all, during the first hour.

On the other side, the tastelessness of sulphonal must be placed against the bitter taste of trional and tetronal. This quality of the latter drugs did not cause much objection on the part of the patients, and in no case were they refused. Further, in two cases in which 45-60 grains of trional were taken over-night complaint

was made next morning of ataxy of the limbs, especially of the legs. This symptom, however, passed off during the course of the day.

In five cases of tetronal use vomiting set in a few hours after the administration of the drug, or else the next morning; with this there was anorexia. Both symptoms, however, soon disappeared. For the rest no unpleasant effects on lungs, heart, or kidneys were at any time observed.

Schultze found trional, on the whole, more effective than tetronal. Roughly he values them numerically as 75-60. He thinks that trional can rank as equal to sulphonal, perhaps in some respects as its superior.

*Subcutaneous "Infusion" of Salt Solution in Collapse from Abstinence in a Case of Acute Psychosis.* ("Therap. Monatsh.," October, 1891.)

Dr. Mercklin, of Riga, refers to a most interesting case of collapse successfully treated by the hypodermic injection of salt solution. The record is as follows:—The patient, æt. 22, the wife of a publican, had been infected with syphilis since her marriage, and had undergone prolonged inunction treatment. On October 23rd, 1890, the first symptoms of mental excitement, sleeplessness, motor unrest, etc., appeared; food was taken in insufficient quantity. On admission, October 29th, great motor unrest was noticed; the attention could not be fixed. For two days all nourishment had been refused. Great mental confusion was next recorded. On November 1st patient looked very prostrate, and the œsophageal tube was employed, and continued for the next two days; sulphonal was also given for the unrest. November 4th—Patient vomited after each feeding with the tube; increased weakness. Two subcutaneous injections of ether. November 5th—Complete abstinence; increased prostration; skin cool, eyes dull. Food by the tube vomited; an enema of lukewarm water returned quickly. 10 a.m.—Facies hippocratica; pulse not palpable. A solution of common salt, 0.3 per cent., in distilled water, was now made, filtered, and boiled, and of this 500 c.c. ( $17\frac{1}{2}$  fl. oz.) were introduced under the skin of the thigh. The apparatus had to be improvised. A needle of about  $3 \times$  the bore of an ordinary Pravaz syringe was fixed to the end of a long rubber tube, to the other end of which a glass funnel was attached. To prevent cooling of the solution several coils of the tube were placed in a vessel of warm water. The infusion of the solution was very slow, though the funnel was raised high. Careful massage expedited the absorption of the solution. Rapid improvement occurred. The radial pulse was soon felt, and the features of the patient became reanimated. At 2 p.m. the same quantity was injected into the other thigh. Patient distinctly stronger. 8 p.m.—Patient fed with the œso-

phageal tube (milk), but vomiting followed directly. At 9 p.m. patient more lucid. Stated that she had held the food to be poisoned, and now asked for and began to take food. From November 6th the patient progressed satisfactorily. On November 28th she left the institution. The reviewer, Rabow, then refers to a similar case of his own, viz., great mental confusion, with motor unrest and collapse, in which surprising recovery followed similar treatment. In this case the patient had wasted to a skeleton. The subcutaneous infusion, to the extent of three times  $17\frac{1}{2}$  oz. of salt solution, took place on two separate days. By the time the patient had left the asylum she had gained 60 pounds in weight.

Dr. Mercklin's original paper is to be found in the "Sep. Abdruck des Cblatt f. Nervenheilk. u. Psychiatrie," March, 1891.

In the supplementary volume of the "Zeitschr. f. Klin. Medizin," 1891, pp. 49-86, an elaborate article is contributed by Dr. Biernacki, of Warsaw, on the influence of hypodermic injections of large quantities of 0.7 per cent. solution of sodium chloride upon the blood and the secretion of urine. The author refers to the rise and progress of the intravenous injection of saline solutions (0.6-0.7 per cent.), and subsequently to the use of hypodermic injections of the same solutions in the same states, *e.g.*, after losses of blood, in the collapse of cholera, in other states of collapse. The author next proceeds to examine physiologically the effects of subcutaneous injections upon animals, seeking to establish the physiological basis upon which this treatment rests, he worked in the like manner that Ott investigated the *intravenous* method. All the animals experimented upon recovered sooner or later. The quantities injected varied from  $\frac{1}{4}$  of the bulk of the blood in the animal (reckoned as  $\frac{1}{13}$ th of the body weight) up to  $\frac{1}{2}$ - $\frac{3}{4}$  or even an equal volume. The salt solution was first warmed to about the body heat (37-39°C.), and then the injection was made by means of a syringe of 15 c.c. capacity under the skin of the thorax or of the flank. Massage was never employed to accelerate absorption. Complete absorption took place in from  $\frac{3}{4}$ -1 hour, sometimes rather longer. The blood pressure was tested, and the amount of hæmoglobin, the proportion of red cells, the specific gravity, etc., determined. The blood was also examined chemically as to its proportion of water and organic and inorganic constituents. The following results were obtained:—Following the massive injection of saline the red cells per unit of blood diminish in number, the hæmoglobin percentage falls, likewise the specific gravity and the proportion of solids; on the other hand, the number of white cells, the water percentage, and the inorganic blood constituents rise—in fact, but for the increase of white cells, we have the phenomena of simple

blood dilation. After a period of 1-2 days a second period supervenes, in which the number of red cells, the hæmoglobin percentage, the sp. gr., and the quantity of organic solid constituents rise above the normal. The number of white cells, however, lessens. The inorganic salts remain in excess. After another day, rarely two days, the red cells fall greatly in number; the white cells show oscillations in their number, but gradually reach the normal standard. By about the fourth day from the injection the proportion of water and of red cells attain about the normal percentage. The proportion of salt and the sp. gr. are the last to return to the normal levels.

The phenomena of blood-dilution, first stage, do not reach the degree witnessed when the saline is injected directly into the veins. The fall in sp. gr. is more marked in the venous than the arterial blood. Blood pressure is not appreciably altered.

Strong diuretic action follows the injection, and this causes the appearance of the second stage, viz., condensation or thickening of the blood. During the diuresis the watery element of the injection is thrown out in greater proportion than the saline.

Marked chemical changes in the blood determine the appearance of the third stage. The red cells are destroyed in great numbers, and accordingly we witness for two or three days a hæmoglobinuria.

*Toxic Effects of Cocaine and their Treatment.* Andrew Fullerton, M.D., B.Ch. ("Lancet," September 19, 1891.)

Dr. Fullerton's results were obtained chiefly from the local application of cocaine to the mucous membrane of the nose and mouth in the treatment of local affections in these regions. He is of opinion that the stronger solutions are less readily absorbed than the weaker, and that, for example, two grains in one per cent. solution would be more liable to yield toxic symptoms than the same quantity in a 10 per cent. solution. He has experienced very unpleasant effects from the absorption of less than one grain. The symptoms produced may come on in a few minutes, and last 3-4 hours or more. With small doses there is exhilaration, the mental faculties being stimulated. With much increase of the dose a kind of affective insanity may result. It appears to consist of a kind of mild mania, "in which illusions, hallucinations, and delusions have not yet made their appearance." Insomnia is a troublesome symptom, but strangely it does not appear to be followed next day by as much fatigue as would have been expected.

The vascular system shows excitement except for large doses; with such there may be a rapid, weak, irregular pulse, with oppression at the chest, and some orthopnoea. The temperature



may be slightly raised. The pupils suffer moderate dilatation apart from any local effects, *i.e.*, as the result of absorption into the general circulation. With prolonged use of cocaine there is wasting, and the urine shows abundant urates. Cocaine craving may come on early, and, even after a few days' use, it may be necessary to exercise some strength of will to overcome the desire.

In the treatment of the insomnia of cocaine "chloral gave the best results and opium the worst." Bromides came in between. Enormous doses of chloral were, however, required to produce sleep; the author has used 40 grains of chloral and 40 grains of bromide without producing sleep. Chloral is better given alone, the author thinks, to avoid the unpleasant effects of the bromide next day. The resistance of cocaine insomnia to chloral is referred to by Dr. Willoughby, of London ("Lancet," February 14th, 1891). For the cardiac weakness, ether and ammonia are best given.

What about the safety of these large doses of chloral? The author does not speak of any dangers, so we presume he had no bad results. On his method of chloral dosage we should have been glad of further statements.

## PART IV.—NOTES AND NEWS.

### MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

The Quarterly Meeting of the Medico-Psychological Association was held at the house of Dr. B. W. Richardson, F.R.S., 25, Manchester Square, London, November 19th, 1891, E. B. Whitcombe, Esq., President, in the chair.

The PRESIDENT—I have to announce that the Council have received a report from Dr. Tuke on the subject of an application for a Royal Charter for the Association, and that the Council have fixed the second Thursday in December for a special meeting of members of the Association to approve of the question that application be made for a Royal Charter. The next question before the meeting is balloting for members. The following is the list of candidates :—

Cornelius Suckling, M.D.Lond., M.R.C.P.Lond., Physician Queen's Hospital, Birmingham, 103, Newhall Street, Birmingham.

W. E. St. Lawrence Finney, M.B.Univ.Ireland, Kenlis, Queen's road, Kingston Hill, Surrey.

Charles D. Musgrove, M.B. and C.M.Edin., Assistant Medical Officer, Wye House Asylum, Buxton.

John Custance Shaw, M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, Hull Borough Asylum.

Thomas Stewart Adair, M.B., C.M.Edin., Assistant Medical Officer and Pathologist, Wadsley Asylum, near Sheffield.

James Humphrey Skeen, M.B., C.M.Aber., Assistant Physician, Stirling District Asylum, Larbert.

Robert Renton, M.B., C.M.Edin., M.P.C., Assistant Medical Officer, Crichton Royal Institution, Dumfries.

John J. Cowan, M.B., C.M.Edin., Assistant Medical Officer, Roxburgh District Asylum, Melrose.

Bedford Pierce, M.D.Lond., M.R.C.P., Bethlem Royal Hospital, London.

It is usual to vote for these members *en masse*, and if there is a black ball we take them individually.

The ballot was then taken.

The PRESIDENT—I think we shall be studying Dr. Richardson's convenience if we ask him to at once proceed with the paper which he has so kindly undertaken to lay before this meeting. (See "Original Articles.")

Dr. BLANDFORD—Gentlemen, I have to propose a vote of thanks from this meeting to Dr. Richardson for this extremely valuable and interesting lecture that he has given to us. If we were living in the last century we should speak of him as "that ingenious gentleman, Dr. Richardson," and I sure that although we are now at the end of this 19th century, the term is equally applicable. I am sure you will vote him those thanks which he so eminently deserves for this lecture. (Cheers.)

The PRESIDENT—I am sure a vote of this character scarcely needs seconding or putting to you. The paper which we have heard is of the greatest interest to us individually, and, coming as I do from the provinces, where we look upon Dr. Richardson as a man, who, if he undertakes a thing does it thoroughly and well, I cannot help feeling that we this evening have been receiving from him a most interesting and valuable contribution to our scientific knowledge, and one which he has taken an immense amount of pains and labour to bring before us. I am sure on your behalf I shall be right in saying that we are extremely obliged to Dr. Richardson for his very valuable and interesting paper, and we thank him most heartily for having taken the trouble and care which he has done in preparing it. I have now to state that the candidates for election to the membership of the Association have been unanimously elected. I will now ask gentlemen present for some remarks upon the very interesting paper we have just heard.

Dr. HACK TUKE—I beg to express my entire concurrence with the remarks which have been made by Dr. Blandford and the President in regard to the lecture which has been given this evening to us. I am very glad that an honorary member should do what I think very few honorary members do—contribute to our papers and discussions. Dr. Richardson states that his theory will explain many of the grand mental phenomena of life. I am sure that if it explains only a small part of the phenomena which are so interesting to us all, and are so difficult to study and to explain, we shall feel exceedingly grateful to him. I do not think the members of the Association present will blame me for having asked Dr. Richardson to concentrate what he had to bring before us in a form which would apply more especially to the studies which occupy our own attention. I will only add in reference to Dr. Richardson's remark in regard to his paper being placed in our Archives, that his paper will appear in the next number of the "Journal of Mental Science," when all members will have an opportunity of studying it.

The PRESIDENT—I understand Professor Hughes is here. I am sure we should be delighted to hear his views upon this paper.

Professor HUGHES—I am much obliged to you for calling upon me. This is not a subject which I am acquainted with, but I have been perfectly wonder-

struck with the amount of research which Dr. Richardson has brought to bear upon it. He has mentioned my instrument which I gave to him many years ago, but I had never the slightest idea that he would employ it to such enormous value as he has. He has employed it in a way really that I could not have conceived of myself. He has employed in this research pneumatics, chemistry, electricity, optics, and the most extraordinary statement he has made is that you can distinguish diseased states by sounds through the telephone; that is very important. I made many experiments myself, trying to insulate directed sounds to the microphone, but I must confess I have never been able to succeed in insulating the sounds and directing them. I can only join in expressing the greatest thanks to Dr. Richardson for the lecture.

Dr. RICHARDSON, after explaining that the use of the telephone in diagnosis, to which Professor Hughes had referred, was as yet very limited, added—I am sure I am very much obliged to you for your kindness in passing this vote of thanks. You must take this only as the first instalment of a research which has lasted for a great many years. Since the year 1860 I have been working at this matter. This is, at the present moment, the last outcome of what has occurred to me, but it is very little indeed. Your kindness will stimulate me to still further progress, so that I may leave a little more to those who shall follow me. (Applause.)

The meeting was then adjourned.

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### SPECIAL GENERAL MEETING OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

A Special General Meeting of the Association was held at Bethlem Hospital, Dec. 10, 1891, for the purpose of considering the question of an application for a Royal Charter, the meeting having been empowered to act by the annual meeting held at Birmingham.

The chair was taken by E. B. Whitecombe, Esq., President.

The PRESIDENT said the time of the present meeting had been fixed by the Council, and was called for the special purpose of giving its sanction or otherwise to an application to be made in the proper quarter for the granting of a Royal Charter to the Association. At the last annual meeting Dr. Hack Tuke brought the matter forward, and it was then decided that counsel's opinion should be taken upon the question. The Council of the Association had had that opinion before them at their last meeting, and upon that it was decided to call a special general meeting of the Association. The Council at a rather full meeting were unanimous in their opinion that the application should be made, subject to the decision of a general meeting of the members. He would call upon Dr. Tuke to explain the matter further.

Dr. HACK TUKE said that after the annual meeting, he undertook, in the absence of the secretary, to ask the solicitor, Mr. Wigan, to obtain counsel's opinion on various points which it was wished to place before him. The questions referred to counsel were:—(1). The steps to be taken by the Association for obtaining the Royal Charter. (2). What is the prospect of success in making the application? (3). To what expense is the Association likely to be put (first) if unopposed, and (second) if opposed? It was stated that the application for a Royal Charter is made at the present time on the occasion of the Jubilee of the Association. We had then to give various particulars in

regard to the Association, its aims and constitution, and what it had already done. That information was supplied, but it would be unnecessary to read it to the meeting, as they were already well acquainted with its history and objects, and counsel's opinion was given at considerable length, and if it was the wish of the meeting he would read it, if not he would simply refer to its main points instead of reading it in full. (Agreed.) The counsel to whom the questions were submitted advised that in the first place the application should be sanctioned by a resolution of the Association; that a resolution should also be passed stating whether the expenses should be paid out of the funds of the Association altogether or partly by a special subscription. A petition to the Queen in Council must be prepared, as also a draft Charter when settled by counsel. Then having been submitted to a meeting of the Association, the documents were to be left at the Privy Council office, and were usually referred to the Board of Trade. If the reply was favourable, the Charter was prepared and sealed. It was then sent to the Home Office, when the petitioners obtained it on paying the usual fees. Counsel proceeded to say that he thought the application would be successful, and that the case of the Medico-Psychological Association was immeasurably stronger than that of a scientific society which had recently obtained the Charter. In answer to the question as to the cost, he said that in a recent unopposed case the total cost amounted to £173 9s. In another instance, that of the Incorporated Law Society of Scotland, it was only £96, and in a third case which he mentioned it was £100. If opposed that would involve an additional expense for having the case argued before the Privy Council. Counsel then referred to the question of granting a degree in Psychological Medicine, and his opinion was that power to grant it should be inserted in the draft Charter, but that it should be privately conveyed to the Committee of Council that the clause would be sacrificed if the Charter would not be granted without its abandonment. Of course as to claiming any right to give a diploma that was entirely out of the question. Counsel also stated that the Association might, if it failed in obtaining a Royal Charter, apply for Incorporation under the Companies Act of 1867, section 23, by licence from the Board of Trade, and he stated that he had no doubt that such an application would be successful. Dr. Tuke added that in such a case it would be competent for the Association to apply for the prefix "Royal" altogether independent of the Royal Charter. There were therefore two courses before them, the one trying to obtain a Royal Charter, the other applying to be Incorporated under the Companies Act, and also for power to prefix the term "Royal" to the Association. These were the only points in counsel's opinion to which he wished to refer. It was perhaps unnecessary to repeat what he had said at the annual meeting as to the grounds on which it would be an advantage to the Association to possess one or other of these titles. Though it was perhaps rather difficult to define, there was no doubt a certain status, dignity, or prestige connected with the title "Royal," and the number of applications made for a Charter was a proof of the estimation in which it was held. Unfortunately that was one of their difficulties, because the fact of there having been so many applications recently rendered the success of the Association less probable than at one time it appeared to be. It was also thought in regard to the examinations that the possession of a Royal Charter would cause their Certificates for Efficiency in Psychological Medicine to be held in higher esteem, and more candidates would present themselves for examination than at present if they knew that they were to be connected with the Royal Medico-Psychological Association. The same thing would apply to certificates for nurses and other matters. Perhaps it was a matter of prestige, but still it was something of which they could all understand the value. In conclusion he proposed: "That the question of an application for a Royal Charter be referred to a Committee, who shall have power to apply in the name of the Association either to the Privy Council for a Charter or to the Board of



Trade for registration under the 23rd section of the Companies Act of 1867." The President suggested to him that the application should be referred to the Council instead of to a Committee, and he was quite willing to accept that suggestion.

Mr. WIGAN said in regard to the question of expense, that in the case of the Royal Colonial Institute, the fees on obtaining the Royal Charter were £104 19s., and the solicitor's costs and counsel's fees came to £68 10s., making a total of £173 19s. That was the figure Dr. Tuke quoted. The alternative cost of registering under the Companies Act was a very much cheaper proceeding, the costs being between £50 and £60. The status and stability legally were very much the same whether they had a Royal Charter or were registered under section of the Act 1867. They were allowed to register without putting the word "limited" after their title, provided they were a scientific society, or one for promoting general welfare, and did not divide profits in the form of dividends. Possibly one objection to registering was that they did not necessarily get the word "Royal," but the Home Office had power to grant leave to companies registering under that section to use the word "Royal." In such a case their position would be really very much the same as if they obtained a Royal Charter, and they would have it for £50 or £60. He might also say that registration under that section was very commonly used as a stepping-stone towards a Royal Charter. The advantages of getting the Charter or of being registered were shortly as follows:—That the Associations could in that way obtain credit and stability, that they could have a common seal, and own property without the intervention of trustees, and that their members were free from personal responsibility and liability. There was of course a certain amount of dignity conferred by the title "Royal."

Dr. BLANDFORD asked whether in the case of registration under the Companies Act the members of the Association would acquire the title of Fellows as they would under a Royal Charter.

Mr. WIGAN said he was hardly prepared to say they would, but he saw no reason which would prevent the Board of Trade passing a clause allowing members to call themselves Fellows.

Dr. TUKE said he would formally propose the first resolution, and it would of course be open to anyone to propose any modification, especially as to whether the question should be referred to the Council alone or to the Council with some members of the Association added, or to a Committee.

Dr. BLANDFORD seconded the resolution.

Dr. NICOLSON thought it might be advisable if the names of a few members of the Association were added to the Council to assist in this special matter. From inquiries he had made at Dr. Tuke's suggestion at the Home Office he found that the courses suggested by Dr. Tuke were all open to the Association, but they disliked having the application made directly to them for a Royal Charter, and said that the rule followed since the passing of the Act of 1867 was that incorporation should be obtained under that Act, and that the application for a Royal Charter should follow afterwards. He feared that the hope of getting a Royal Charter now was not very brilliant. With regard to the word "Royal," that might be applied for, direct, to the Home Office, and he was informed that there would not be any great difficulty in getting such an application acceded to, whether they were incorporated or not. Seeing that it was thought desirable to have the word "Royal" prefixed to their title, he thought every means should be used to follow out the suggestion in such a way as would not only meet their requirements, but give likelihood of success. With that view he thought it would be desirable that the matter should be referred to a committee composed of the Council and of some members of the Association who took an interest in it, and amongst other names he would suggest those of Dr. Blandford and Dr. White. A good many members of the Council not living in London might not be able to attend the Committee meetings, and

the Association generally would be more satisfied if they were specially represented. He would suggest that five other names should be added to the Council, and that they should be authorized to act in accordance with the proposal now before them.

Mr. RICHARDS agreed that there might be some little doubt as to obtaining a Royal Charter. Some few years since he was on the Council of the Medical Society of London, and they were very anxious about the time of their centenary to obtain a Royal Charter. The matter was thoroughly discussed, and the Council thought they had sufficient interest and sufficient friends at Court in order to obtain it. In fact, they felt perfectly certain of doing so. The application was made, but he was very sorry to say it was refused. If that was the case with the oldest Medical Society in London, they might be too sanguine if they hoped that a society of fifty years' standing would have such an application acceded to. Perhaps it was more than they could expect under the circumstances.

Dr. MERCIER said the proposition before the meeting was whether the subject should be left to the action of the Committee or to the action of the Council. In a question so extremely important as this, involving the entire reconstitution of the Society, the entire body of members had a right to be consulted. That meeting was scarcely sufficiently numerous to decide so important a matter. He would suggest that a circular should be sent out in which members should be asked definitely to reply "Yes" or "No" to certain questions as to whether the change was desirable, and whether they would wish it carried out. It might be said that every member of the Association had received the circular convening that meeting, and that it was open to each member to attend if they took an interest in the subject. The great majority of members were prevented by circumstances from attending a meeting in London. If an application of the kind proposed was made, and was backed by the entire influence of the whole of the Association, it would carry a very great deal more weight with it than if made only by a few members. He would propose as an amendment that before any further action was taken every member of the Association should be consulted by circular as to the proposed change.

The PRESIDENT said that would not be in order. At the annual meeting the following resolution was passed: "That it is desirable to apply for a Royal Charter, and to add the prefix 'Royal' to the title of the Association; and that the Secretary be requested to take counsel's opinion as to the proper course to be taken in order to carry this resolution into effect." That was carried unanimously at the annual meeting. He would also point out that the question which that meeting was specially called to consider was whether sanction should be given for the application to be made now that they had counsel's opinion. With regard to members of the Association having the opportunity of giving their opinion about it, he might say from his own practical experience that so far as post-cards were concerned, or any circular letter, only about one-half the members, if that, of the Association ever took the trouble to answer them. The circular calling that meeting had been sent to every member of the Association, but only one apology for non-attendance had been received. At the annual meeting it was resolved that a special meeting be called to take definite action if such was their judgment. There was only one of two courses open—either to sanction that action or to disapprove of it entirely.

Dr. REES PHILLIPS asked whether it was not clear that there was but slight chance of getting a Royal Charter, at any rate, in the first instance. Dr. Tukey's explanation certainly conveyed that idea, seeing that he strongly advised an alternative application for registration under the Companies Act. They had also heard from Mr. Richards that the Medical Society, the oldest Society of the kind in London, failed in its application. He was afraid that any similar application on their part made now would meet with the same result. He therefore thought that any application for a Charter should be dropped,

and that they should not incur the expenditure of solicitor's and counsel's fees. The only question they should consider was whether they should proceed to register under the Companies Act, and obtain the prefix "Royal."

Dr. BONVILLE FOX said what they had to consider was not so much whether they were likely to meet with a snubbing—that was a thing they were accustomed to in the ordinary course of daily life—as whether they were willing to expend the money of the Association for this purpose. Were they willing to throw away any money on the chance of getting what they were asking for? That was a matter for serious consideration. If the application for a Royal Charter would cost but little, he should say apply for that first of all, and never mind the snubbing.

Mr. WIGAN said the expense of such an application might be about £40. It really depended on when they withdrew as to how much expense was incurred. The principal item was for fees, and most of them were not payable unless the Charter was actually obtained. The counsel's and solicitor's fees were principally involved in settling the petition, which had to be settled very carefully, and also the draft Charter. If they got a hint to withdraw at once the only expense would be that of the petition, but if they went on a little longer they would incur some other fees.

Dr. WHITE thought it was advisable that they should know the exact financial state of the Association, and also to what extent the Council was to have power to spend money of the Association. He said that as a member of the Council, because he should feel certainly a grave responsibility if he took an active part in spending more than the general body of the Association would wish.

Dr. HACK TUKE said that the balance-sheet showed that the sum in the hands of the Treasurer at midsummer was £325, and the amount invested £306. Of course they had in addition to that £1,347 Stock in connection with the Gaskell Trust, making altogether about £2,000. The sum available, reckoning what they had invested, would be about £600 at the time of the annual meeting. He should be quite willing to modify the resolution to meet the suggestion of Dr. Nicolson, so that the question of the application for the Royal Charter should be referred to the Council with the additional names of Dr. Blandford, Dr. Orange, and Dr. Rees Phillips, who should have power in the name of the Association either to apply to the Privy Council for a Charter or to the Board of Trade for registration under the 23rd section of the Companies Act, 1867. If that were passed another resolution might be proposed limiting the Committee to a certain sum to meet Dr. White's view.

Dr. BLANDFORD seconded.

Dr. ORANGE thought other names should be added. He proposed the name of Dr. Mercier.

Dr. MERCIER said he should not like to take the function upon himself unless he felt that he had the support of a large body of the Association. At present he did not feel that the Council had that support, and he should not like to act under such circumstances.

Mr. C. M. TUKE thought the better way would be to leave it in the hands of the Council to act as they in their wisdom thought desirable. He did not see why there should be any further hesitation in the matter.

The PRESIDENT said he was afraid that the resolution proposed by Dr. Tuke was scarcely in order. They were met purely and simply for the purpose of sanctioning or not the application for a Royal Charter. The proposition before the meeting must be that the question of an application for a Royal Charter be referred to the Council, with the additional members of the Association, who should have power in the name of the Association to apply to the Privy Council for a Charter, and then it would be open to any member of the Association to move an amendment to that. He did not think they could, unless as an amendment, take a resolution that an application should be made to the Board of Trade to incorporate the Association under the Companies Act.



Dr. HACK TUKE said he would follow the ruling of the President, and would omit the second clause from the resolution. The resolution would, therefore, simply be to authorize the Council, with the addition of certain names, to apply to the Privy Council for a Charter.

Dr. BLANDFORD seconded.

Dr. NICOLSON said he should oppose that. As informed, he felt that any application for a Royal Charter at the present time would be a mistake. He begged to move the previous question.

Dr. BONVILLE FOX said the question of a Royal Charter had been discussed before, and the application adopted by a general meeting of the Association. That of the application for incorporation under the Companies Act had not been before the Association, and was a new feature. Again, when the Charter was discussed they were in the dark as regards the cost. The amendment he was about to propose would practically reopen the whole question. As the suggestion of another scheme which would answer their purpose equally well as compared with that of the Royal Charter was one entirely fresh to the whole body of members, he thought they would be consulting the wishes of the Association, and also the dignity of the Council, if a little longer time was taken before anything was done. He proposed that the Council and those gentlemen who had been named might have power given them to apply for a Royal Charter if they thought fit, or, as an alternative, to apply for incorporation under the Companies Act; or to let the matter of the Royal Charter rest in view of the considerable cost that it would involve if obtained. As a member of the Council, before they spent any money in acquiring a title which was not adopted by the Association as a whole, he should like the Association to be consulted, and therefore wished the Committee to have a free hand. It did not do away with the possibility of following Dr. Tuke's motion, it only put other possibilities in the alternative.

Dr. MERCIER suggested that the voting upon the motion should be by proxy, but this was not supported.

Mr. RICHARDS said every member of the Association ought to be apprised of the fact, and a special meeting called for that purpose, just as a special meeting had been called to consider the question of the Charter.

Dr. WHITE said the meeting of that evening was solely on the question of the Royal Charter. They did not discuss the alternative scheme at the Council meeting. It was very desirable that the vote should be taken on one point only, viz., the question of applying for a Royal Charter.

Dr. NICOLSON said that in view of the alternative schemes that had been mentioned he would propose that the whole matter be postponed until the annual meeting. It could then be dealt with in a thorough and satisfactory way, and no member of the Association would have the opportunity of complaining that he had been left out in the cold. He thought they would stultify themselves if they now took up an alternative measure in a tentative way. He moved, "That the whole matter be referred back to the Council to consider and report at the next annual meeting."

Dr. WHITE seconded the amendment.

Dr. TUKE said he would willingly withdraw his resolution. He thought under the circumstances that the proposition made by Dr. Nicolson was quite the best. He was indebted to Dr. Nicolson for having adopted his suggestion of making some private inquiry.

Dr. BONVILLE FOX—Do I understand that the question is still to be left before the Committee, who will make some report at the annual meeting?

The PRESIDENT—The whole question is to be referred back, and reported upon as a whole.

Dr. OUTTERSON WOOD—We do not want any other names; simply refer it back to the Council to consider the matter, and to report to the annual meeting.



The PRESIDENT—Then I will put the amendment: "That the subject of the application for a Royal Charter be referred to the Council to report on at the next annual meeting."

The amendment was put to the meeting and carried.

### SCOTCH MEETING OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

A Quarterly Meeting was held in the Hall of the Royal College of Physicians Edinburgh, on Thursday, 12th November. Dr. Watson occupied the chair, and the following were present:—Drs. Bruce, Campbell Clark, Carswell, Clouston, Elkins, Howden, Ireland, Carlyle Johnstone, Keay, Keiller, McPherson, R. B. Mitchell, G. M. Robertson, Batty Tuke, junr., Turnbull, Urquhart (Secretary for Scotland), Yellowlees.

Dr. CAMPBELL CLARK reported that the authors of the handbook for the instruction of attendants on the insane had received a letter from Messrs Baillière, Tindall, and Cox, the publishers, stating that the third thousand was now being sold, and that they were in a position to pay a royalty on these copies. Dr. Clark said that the question was whether they should accept that royalty as a remuneration for writing the handbook, or whether they should hand it over to the Association.

Dr. JOHNSTONE said that the men who did the work ought to get the money, and he moved accordingly.

This was unanimously agreed to.

#### THE NEXT QUARTERLY MEETING.

It was decided to hold the next Quarterly Meeting in Scotland in Glasgow, on the second Thursday of March, as usual.

Dr. URQUHART reported that he had communicated with Dr. Fletcher Beach, the founder of the meeting of 12th March, 1891, relative to the Pathological Committee.

Dr. CARLYLE JOHNSTONE read a paper on "The Use of Sulphonal." (See Original Articles.)

Dr. HOWDEN said that he had very seldom listened to a paper with greater pleasure than the one they had just heard. Dr. Johnstone's paper was so exhaustive, minute, and careful, that he felt unable to criticize it without reading and studying it. It was a most valuable paper, and they might use it as a handbook on sulphonal. He could not, from his own experience, confirm everything that Dr. Johnstone said, but that was perhaps from his own less careful way of administering and studying the effects of the drug. One thing had struck him as remarkable, that its effect was increased by long use, which was opposed to our knowledge of all other hypnotics.

Dr. YELLOWLEES said he had been using sulphonal a great deal, and he could fully endorse everything that Dr. Johnstone had said. It was a very valuable addition indeed to their means of treatment. He had one patient only where sulphonal was absolutely useless, and that was a case of recurrent acute mania. It was of extreme value in the case of a woman who had been the torment of the house for six weeks. He began to use it the moment there was the least appearance of excitement. He confessed a certain fear as to the pushing of sulphonal in recoverable cases. The condition which it produced of miserable helpless prostration of body and mind was not conducive to recovery. They should use it, like other hypnotics, as little as they possibly could.

Dr. CLOUSTON said that they knew Dr. Johnstone's critical habit of mind,

and perhaps that had made him all the more exact in his observations. There were very few medicines that they would allow even an intelligent nurse to give to patients without special medical orders for each dose. Now, they could allow an intelligent nurse to give twenty-five grains of sulphonal to a patient as the case required, and in this way it differed from many drugs. At Morningside they had had an extremely acute case of general paralysis with very disagreeable, violent, and dangerous symptoms. They kept him in a darkened room for three weeks, and gave him thirty grains of sulphonal a day. They began to take him out to the garden, at the same time gradually withdrawing the sulphonal. The first stage of general paralysis was passed in three weeks, and the patient had now for three weeks been working quietly in the garden. If they had in sulphonal a drug that would terminate the first stage of general paralysis and pass the patient on quietly to the second stage within a short time, then it was without doubt extremely valuable. Another case of violent delirious mania was kept under the influence of sulphonal. He never got more than forty grains a day, and occasionally only twenty every two or three days. The man himself knew that he was better for the sulphonal. They were also trying this drug in an extremely interesting case of adolescent insanity, where it allowed the patient and those around him to have some quiet. In giving sulphonal they ought to allow an interval to pass now and then. They should stop the drug, and permit its effects to pass off. He rather thought it was a good plan to accumulate the drug very quickly, to pile it on. They could push the administration and get the patient thoroughly under its influence within 48 hours. Sulphonal strongly resembled the bromides in its motor effects. It caused a very white fur on the tongue from the beginning, and when the drug was pushed this was a very constant symptom. His experience was that sulphonal, judiciously given, resulted in a direct gain in the weight of the patient.

Dr. KEAY said that he had found that the best way was to put a patient as quickly as possible under the influence of sulphonal, and by so doing attacks had been cut short. Small doses sufficed to keep the patient under the influence of the drug.

Dr. URQUHART said that he had listened with great pleasure to Dr. Johnstone's paper, because he agreed with all that Dr. Johnstone had said about the use of sulphonal. They had used it for some time in Perth, and he had never seen any appreciable ill-effects ensue. He should like to have a discussion as to what was the best kind of sulphonal to use. Some samples were almost inert, and, after a trial of various qualities, he had come to use the kind made in Germany by Bayer. He had also prescribed, in special cases, the sulphonal capsules made by Duncan and Flockhart. If they gave capsules, the results were more immediate than if they gave powders. The powders, however, were more satisfactory for asylum purposes. The difficulties he had remarked in connection with sulphonal were the objections urged by patients the day following administration. Sometimes patients would say that they were being "drugged," and instead of getting any benefit their senses had been obscured. It was a very real objection in dealing with educated patients, who had a feeling that they were being maltreated. He had only seen one case in which the patient staggered, and only one where there had been disturbance of the gastric functions. He should like to hear something of the results of using sulphonal in epilepsy. A great advantage of sulphonal was that it could be given to people suffering from heart disease. To the best of his knowledge and belief, there had been no death recorded from the use of sulphonal. He had found it decidedly useful in recurrent cases, but he had come to the conclusion that their statistics of recovery would not be materially affected by sulphonal except in that it conserved the bodily strength in acute cases.

Dr. CLARK said that his own experience had been generally in favour of the conclusions arrived at by Dr. Johnstone. He had found sulphonal unsatisfactory only in dealing with organic disease. They were not in a position to know what

was the real pathological process going on under sulphonal; and it would be difficult to say whether sulphonal shortened the life of paralytic patients. At almost any cost, however, they must save broken bones and obviate other risks. He had seen cases of staggering in patients afflicted with general paralysis and other forms of organic disease of the brain, and it was a question with him whether he was justified in using sulphonal in these cases. He agreed with Dr. Clouston that an intelligent nurse might be trusted with sulphonal, but he would not give the nurse a box of powders and allow her to use them as she liked. Dr. Johnstone gave sulphonal rather earlier in the day than he himself did. Unless, in his own asylum, it was deferred till the house was quiet, the good effects were very much minimized.

Dr. TURNBULL said that he would not grant that sulphonal was free from risk or that it should be employed indiscriminately. It had been used with the best effect in the Fife Asylum in cases of melancholia, where it set them on the way to recovery quicker than would otherwise have occurred. In chronic mania, sulphonal in single doses was of great use in tiding them over a bad spurt. In recurrent mania the attacks had been ameliorated, and in such cases one felt that good was being done while not deteriorating the bodily health of the patient. In some cases bad results had ensued. In one there was vomiting and diarrhoea, liver derangement, and high temperature. That patient was now improved in mental condition, but he had not tried sulphonal again. He had given sulphonal in two or three cases of acute adolescent mania, but he found that the patients went in the wrong direction. In senile cases, also, one had to be very careful.

Dr. ROBERTSON gave an account of a case in Morningside Asylum, to which Dr. Clouston had referred. He said that it was impossible to describe how very troublesome and dangerous that woman was. She was homicidal and very suicidal. These attacks came on quite suddenly, and it was necessary to bring her very quickly under the influence of sulphonal. They sometimes gave 60 grains in the morning and 60 in the evening. Small doses would not have been so advantageous as large in that case. When one has tried small doses without ill-effect, then larger doses may be used. Very early in the experience of sulphonal there had been a case in Germany where a woman took half an ounce of sulphonal, and only slept for 24 hours. One death had happened where a person was under the influence of sulphonal. He had had several cases of vomiting after its use. He then described one case in which the use of the drug could not be continued, on account of its producing vomiting. With reference to the effect of sulphonal on the urinary organs, they had had a female patient whose urine became very red. He sent a specimen to Dr. Noel Paton, but he could discover nothing but pigment, and this seemed to be a result of the use of sulphonal. This patient became very much collapsed, and they called in Professor Greenfield, who could not discover anything definite. They had found slight hemiplegia, but what the exact explanation was he did not know. He believed that sulphonal had been tried in epilepsy, but that it had not been found so satisfactory as bromide. In chorea it was of distinct service. In those cases in which sulphonal acted rather severely, they were in the habit of purging the patient, under the impression that the bowels had become loaded with sulphonal.

Dr. ELKINS referred to the case of a lady who had been getting sulphonal, and who had requested her husband to ask Dr. Clouston to discontinue it, because she felt as if she was bound with chains.

Dr. KEILLER described a case in which 30 grains of sulphonal had been given to an old lady. Death had ensued at no great interval, and it had been a question with him whether it had not been hastened by this drug. He was satisfied that the discussion had shown sulphonal to be blameless in that particular case.

The CHAIRMAN said that sulphonal had now been extensively tried in asylum practice, and that they all used it more or less. Dr. Johnstone had, perhaps,

obtained better results than some of them, but his own experience was distinctly favourable to the use of sulphonal. He had used it in cases of post-epileptic excitement with good effect. He had not found it of much benefit in melancholia. In one case dangerous collapse had occurred.

Dr. JOHNSTONE, in replying on the discussion, said that he was much flattered by what had been said regarding his paper. He had never met cases in which patients had become habituated to the use of sulphonal. It was his regular practice to diminish the dose. He had had no distinct evil resulting in any case from the use of sulphonal, but he was suspicious of it, and he was very careful in giving it. In the case of a person of good bodily health he might "pile on" the sulphonal, but the physical condition of the patient should be always carefully considered. He thought that the best way of giving sulphonal to a patient was in the form of a fine powder with a little water or tea. He had not found a white fur on the tongue in the majority of cases. He had not weighed his patients systematically before and after the use of sulphonal, and had only given sulphonal to those who actually required a hypnotic or sedative, not in an experimental way. The kind of sulphonal he used was manufactured in Berlin. The disagreeable after-effects of sulphonal were very grave, and it was the more intelligent patients who so complained. He had not given sulphonal an extended trial in cases of epilepsy. He believed that one death from sulphonal had occurred, and was recorded in "The British Medical Journal." It was not from a medicinal dose.

Dr. MACPHERSON then exhibited the plans of the Stirling District Asylum, including those of the new hospital for acute cases.

An interesting discussion on the principles and details involved was shortened by the limited time at the disposal of the meeting.

Dr. G. M. ROBERTSON thereafter read part of his paper on a visit to the Hypnotic Schools in France, which will be presented by Dr. Clouston to the Committee of Hypnotism appointed by the British Medical Association.

Discussion had to be postponed, but Dr. Robertson was warmly thanked for his interesting and valuable report.

Dr. Bruce showed a ruptured heart. (See "Clinical Notes and Cases.")

The members dined at the Edinburgh Hotel in accordance with usual custom.

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### IRISH MEETING.

An Irish Quarterly Meeting was held at the Richmond (Dublin District) Asylum, Dublin, on June 18, 1891. The following members were present:—D. Yellowlees, M.D., LL.D., etc. (President), in the chair, Drs. Law Wade, Finnigan, Molony, Patton, Nash, Nolan, Ashe, and Conolly Norman (Secretary); and the following guests: Dr. West, of Chicago, and Drs. Mills and Shackleton.

The minutes of the preceding meeting having been read, confirmed, and signed,

The PRESIDENT read a communication on "Recovery from Melancholia." After some preliminary remarks on the increase in the number of cases of melancholia which came under treatment of recent years, which, however it is to be accounted for, the speaker regarded as an indisputable clinical fact, he proceeded to describe in detail two cases to show that in melancholia one need hardly despair of the possibility of cure. The first occurred in the person of a governess, a woman of intelligence and culture, aged 32 years. She was possessed of the delusion that she was the devil, and kept continually whispering, "I'm the devil, I'm the devil, I'm the devil!" Otherwise she scarcely spoke, and took little notice of her surroundings. This condition of affairs lasted for ten years, and yet she made a good recovery. It is interesting to



observe that her improvement seemed to originate in a trivial way. One evening she was with much difficulty persuaded to join in a game of whist. At first she kept muttering her old refrain, "I'm the devil," but she soon became interested in the game, announced correctly that clubs were trumps, took a trick, and threw herself into the work in hand, talking no more then of her diabolical fancies. From that evening she grew better. The second case was even more remarkable. A woman 44 years of age, suffering from her second attack of insanity, thought every person was conspiring to poison her. She recovered after an illness of fifteen years' duration, during eight years and eight months of which time she had to be fed with the stomach tube, in consequence of obstinate refusal of food depending upon the delusion above referred to. By a happy combination of management and accident she was induced to take food. One day with great difficulty the speaker got a spoonful of food into her mouth. There she retained it. By accident the chair she was seated on tilted over backwards. The patient gave a gasp and gulped down the mouthful of food. The spell being broken, there was no longer any difficulty about getting her to take nourishment, and she improved steadily from that time.

Dr. PATTON concurred with the President in thinking that though cases of an acute and desperate character were rarer now than formerly, there was, on the whole, a great increase in the amount of melancholia we see. In his experience patients even possessed of ineradicable delusion soon weary of the stomach tube.

Dr. FINNIGAN referred to two cases in his practice at the Mullingar Asylum. The first was a young school mistress, without hereditary taint or other easily assignable cause of illness. The case had passed into a chronic condition, and had not exhibited any sign of improvement. A somewhat anomalous symptom was observed—that the patient was jealous of the nurses, especially those who were good-looking or specially tidy in appearance. She also kept her face constantly covered, though she did not seem to have any delusion suggesting this. She exhibited an abnormal growth of hair on the chin, and a disfiguring nebula on one cornea. Dr. Finnigan, conceiving that these conditions might have indirect aetiological importance, removed the beard by epilation and the nebula by tattooing. The result was extremely satisfactory, and the patient made a good recovery. In the second case very obstinate refusal of food, occurring in a young female melancholiac, was overcome by simply directing that all nourishment was to be given in future per rectum, with the expected result that the patient, sooner than suffer what she conceived to be the indignity of the mode of feeding, took food voluntarily, and began rapidly to recover.

Dr. MOLONY, among other cases bearing on the subject, recounted that of an elderly lady who was insane for nine years. During all that time she suffered from delusions of a sexual character, which caused her much distress (that she was ravished by beasts, etc.), and she was apt to be blasphemous and obscene in language. For no assignable reason she suddenly improved after this great lapse of time, and rapidly became quite well.

Drs. ASHE and CONOLLY NORMAN also spoke.

Dr. NASH read a paper on a "Case of Rupture of the Heart occurring in a Melancholiac." (See Clinical Cases.)

Dr. LAW WADE had seen a case in which a woman died suddenly immediately an emetic had taken effect. Necropsy revealed cardiac rupture.

The PRESIDENT mentioned two cases. One had occurred in an old man who was a patient at Gartnavel, the other in a gentleman who had previously been in good health, a member of our own profession. In neither case could a diagnosis be made ante-mortem, but the second was remarkable as being attended by a distinct sensation. The sufferer when seated at dinner got what was described as a sort of fit. When he recovered he said someone had struck him on the back. He died the same evening.

Dr. PATTON also spoke.

Dr. CONOLLY NORMAN read a "Note on Cocainism."

Dr. YELLOWLEES thought that the consumption of cocain must be very local, perhaps in part depending on the custom among medical men of prescribing it. He had not a case.

Dr. ASHE referred to the fact that coca leaves, if not cocain, were largely used in Bolivia and seemed to do no harm, though relief from weariness and a pleasant exaltation were produced. He was anxious to learn in what doses the drug had been used.

Dr. CONOLLY NORMAN, in replying, said that in China the average man consumed a little opium every day, and did not become a slave to it; in this country it was not so. However, even in South America cases did occur of chronic cocain poisoning. The nickname "coquero" was applied to the chronic cocainist, and he was recognized by his shrunken, pallid features, his tremulous extremities, his constant chattering, and his inability to work or tell the truth. As to dose, half a grain or less would produce slight intoxicating effects in the tyro. Those who used the drug habitually might consume 20 grains up to two or three drachms in the day. In bad cases it was difficult to be quite sure how much was used. Patients became confused, and were apt to be deliberately untruthful.

The SECRETARY then read a short note on a case of "Folie Communiquée." Two ladies lived close to each other in a Dublin suburb. One was an officer's widow, aged about 50, the other was a companion to a lady, and was unmarried, aged 29 years. They were acquainted, but not in any way intimate. The elder lady had lost her husband abroad some years ago. Latterly she had begun to entertain suspicions of foul play, as she said she never could get sufficiently definite accounts of the manner of his death. She became gradually convinced that Sir A. B., who had been at one time at the head of her husband's department, had poisoned him. Then she thought Sir A. B. was persecuting her by electricity, telephone, etc. To avoid this she came to the neighbourhood of Dublin, and was happy for a time. She now made the acquaintance of the younger lady. The latter was a person of good family history, and, except the disagreeable nature of her position, no cause of aberration suggests itself in her case. Very soon the widow found that Sir A. B. had settled in the next house to her (a delusion), and that he had resumed operating on her by electricity and talking to her, often very indecently, by telephone. About the same time, as well as can be made out, the younger woman began to suspect her employer of accusing her, first of dishonesty, then of unchastity. Then she thought that her employer was guilty of all sorts of monstrous crimes—murder, adultery, and worse—and had made these charges to shut the patient's mouth and screen herself. Then the Chief Secretary for Ireland was suborned by her employer; the matter was talked about (under false names) in the House of Commons, patient was watched continually by the police, and so forth. Some months ago this person was admitted to the District Asylum. The older lady remains at large. The singular part of their case is this, that they have adopted each other's delusions almost in full. Both are shrewd, sharp-tongued women, suspicious and alert even beyond the ordinary mode of paranoiacs of their class. The younger deeply resents confinement in an asylum, and makes caustic remarks on the delusions of those about her. Yet she indignantly denies the suggestion that her friend, the widow, entertains delusions. On the contrary, she *knows* that Sir A. B. lives beside her friend for the purpose of persecution. She has not heard him telephoning, but she believes it is done. (This patient has never exhibited hallucinations of hearing.) She has often seen Sir A. B. watching and walking after the widow. Both ladies are quite positive that Sir A. B. met them at a public promenade the day before the younger lady was sent to the asylum, and that he watched the widow in an insulting manner and made signals to her. From the way the story is told one makes little doubt that somebody did pass and stare at the women, attracted,

no doubt, by their suspicious glances. The well-known public man whom they name was certainly not in Ireland at the time. The younger lady never accused him of having made advances to herself or of having persecuted her, nor does she mention him in connection with her own wrongs. Similarly with the other lady. The machinery of her friend's myths is firmly believed in *quâ* her friend, but it is never transferred to her own case, which stands on a different footing. Each refers, in a general way, to the case of the other as showing that occult persecutions are possible. The case, as far as it goes, is truly one of communication. Some cases which have been so classed—insanity in twins for instance—may occasionally be rather due to a common cause than to communication. Not seldom, perhaps, imbeciles, or very weak-minded persons, may accept the delusions of relatively intelligent lunatics, but it is distinctly rare to find patients suffering from well-marked delusional insanity acquiring further delusions by direct communication.

The PRESIDENT recalled a case of one sister having communicated to another the delusion that the police were watching them and that the people in their lodgings were robbing them.

DRS. FINNIGAN and MOLONY spoke.

Dr. CONOLLY NORMAN said that as the Association had honoured his asylum by holding this meeting therein, he thought it right to show the members some samples of the work that was passing through his hands, and as alienists had been reproached of late for their supposed neglect of general medical work, he had selected exhibits, all collected in the asylum P.M. room within the last few months, of which but one was specially interesting to workers in nervous diseases. The following specimens were laid on the table and described:—*Gross*: (1) Stomach showing numerous penetrating adenomata (pendulous dendriform growths into the cavity of the organ). (2) The viscera of a lunatic who was in the habit of swallowing stones, etc. Five days before his death, being up to that time apparently in his ordinary health, he was seized with acute dyspnœa. Nothing could be found in his throat. The dyspnœa abated, but he developed right pneumonia. Post-mortem this was found to be apparently dependent upon the presence of a foreign body in the right bronchus in the shape of a piece of iron about  $2\frac{1}{2}$  inches long by  $\frac{1}{4}$  wide, being half the "heel tip" of a shoe. A quantity of pebbles, pieces of pipe shank, etc., were found in the stomach, and an ordinary Britannia metal teaspoon lay in the colon just at the hepatic flexure. About an inch and a half of the handle of the teaspoon projected through a perforation of the gut into the peritoneal cavity, and was encysted in the sack of a limited peritonitis. Of the abdominal lesion there had been no indication during life. (3) The abdominal and thoracic viscera of a patient, who died of dysentery, exhibiting (a) characteristic lesions in large intestine, (b) multiple abscesses of liver, (c) one of which had perforated the diaphragm and opened into the right lung, (d) which contained a small depôt of bile-stained pus. (4) Brain of an epileptic lad showing marked microgyry of pre-frontal and occipital convolutions on left side, the motor area little less developed than on right side. During life no special symptom was noted save partial loss of power of right arm, but this was attributed to a bad burn in childhood followed by webbing about the elbow. Among the microscopic specimens were various forms of inflammation of kidney, surgical (from a case of stone), tubercular, gouty in different stages, "large white kidney," etc., adenoma ("dendroid polypus") of stomach; a case of primary cancer of the liver, cancer of liver secondary to cancer in other viscera, sections of which were also shown; cirrhoses of liver, alcoholic and biliary; a series of sections illustrating the various forms of ulceration of the intestines, carcinomatous, tubercular and typhoid, together with dysenteric lesions in several stages and in different portions of the large intestine; tubercular peritonitis which had simulated malignant tumour; ditto, ordinary types, various forms of uterine and ovarian "fibroids," inflammations of lung and pleura consecutive to influenza, etc., etc.

The PRESIDENT, in supplement to his communication on melancholia, showed the mode of feeding which he adopted, which was discussed at some length by the members.

The meeting then terminated.

The members afterwards dined at Jury's Hotel, College Green. There were present Dr. Yellowlees, President of the Association, Dr. Finny, President of the Royal College of Physicians, Ireland, Dr. Bennett, Professor of Surgery, University of Dublin, Dr. Alec Fraser, Professor of Anatomy, R.C.S.I., Dr. Stewart Woodhouse, Medical Commissioner of the Prisons Board, Dr. Law Wade, Dr. J. W. Moore, Dr. G. P. L. Nugent, Dr. Kough, Dr. Aslec, Dr. Finnigan, Dr. Cope, Dr. Molony, Dr. Nash, and Dr. Norman.

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### *Correspondence.*

#### A VISIT TO THE INSANE DEPARTMENT OF THE CHARITÉ HOSPITAL, BERLIN, AND THE ALLIED ASYLUM AT DALLDORF.

*To the Editors of "THE JOURNAL OF MENTAL SCIENCE."*

SIRS,—With your permission I propose to give here information and impressions concerning these institutions. In regard, firstly, to the psychiatric clinic of the Charité—the well-known hospital situated in the north-western quarter of Berlin. It consists of three divisions—one for insane patients, a second for those liable to convulsive seizures, and a third for delirious patients. Professor Jolly is the Director, and subordinate to him are specialist physicians, who are *Privat-Dozenten*, and are assisted by military assistant-physicians. The department is utilized for teaching purposes; in particular, certain young students, or medical men, act in a capacity somewhat similar to that of clinical clerk in our asylums. On the occasion of my visit, one of these took down the condition of patients from the physician's dictation. In cases of necessity, consultation is held with those in charge of other departments of the hospital. There is no regular out-patient system; occasionally, however, an examination is made of the mental condition of some criminal or other person (not an inmate) whose behaviour appears to demand it. The building itself (I now refer to the alienist department) is old, and but indifferently planned. Artistically viewed, the wards are unattractive. There is a deficiency of light and space; the corridors are gloomy, the day-rooms and dormitories cramped, the latter being crowded with beds in a manner highly undesirable, but, it appears, unavoidable. The resources of the department are clearly taxed to a high degree. Dr. Boedeker, who kindly conducted me, informed me that, whilst there was sleeping accommodation for about 200, from 1,000 to 1,500 (and even more) patients pass through yearly. The Charité is, in fact, an institution for acute and presumably-curable cases; patients regarded as incurable are transferred to Dalldorf. The average length of stay is, in the insane department, 22 days; in the department for epilepsy (including convulsive affections generally), 22 days for men, 34 for women. As regards the age of patients, most are between 20 and 50, as might be expected. The class resembles that seen at Bethlem (recent and acute). Between the Charité and Bethlem there is much in common. Since the patients are drawn from Berlin and its environs much diversity of occupation is met with. Amongst the inmates are mechanics, tradesmen, merchants, artists, teachers, officials, and farmers. All the patients seen wore a uniform dress—jacket and trousers, made of a light fabric like the night-costume of some people. In regard to



treatment, the measures adopted do not differ much from those in vogue in English asylums; none of a specially energetic kind are used. The forms of exercise, too, are the ordinary. As much walking in familiar courts is done as in other asylums. Sedatives are but moderately used in the *Charité*. Mechanical restraint is resorted to exceptionally, in comparison with past times. The number of attendants to patients I unfortunately forgot to inquire about. Padded and plain single rooms are made use of a good deal. Treatment by douche and other forms of bath is adopted in cases similar to those so treated in this country. No uncommon methods are employed in the treatment of masturbation. Hypnotism has been and is still occasionally tried. If one may judge from the dearth of reports upon the subject one would suppose that success has been very limited, but some good results are said to have been achieved. The food provided looked good. The daily cost per head in the *Charité* is put down at three marks.

Cases of interest in the psychiatric clinic are reported in the "*Charité-Annalen*," in which records the surgical, medical, and other departments of the hospital are also represented. The following figures are derived from the "*Annalen*," xv., 1890. At the beginning of the year of report the department for the insane contained 127 patients; the admissions in the year amounted to 1,318, the discharges to 1,305. Of these 252 were cured or improved, 911 unimproved, 68 transferred to other departments or asylums, 74 were deaths.

The department for patients with convulsive seizures and that for delirious cases received together 1,192 in the year, and discharged 1,185, of whom 666 were cured or improved.

Dalldorf Asylum—situated at some little distance from Berlin, and reached by tram—has the appearance of the average English county asylum. A long drive passes through the grounds to the central block; this is the administrative portion, but halls for theatricals and concerts are placed here also. Behind are the kitchens, laundry, and engine-houses. Stretching away on either side are five pavilions, male and female patients being accommodated on opposite sides, and separate pavilions devoted to epileptics, violent and excited (including some criminals found insane), and weak-minded patients. Criminals whose condition demands it are confined in a special pavilion with special precautions. The building is modern, handsome, and of great size, and appears to be very well planned. The pavilions are well apart. The grounds are extensive. A director administers the entire institution, and has under his special charge the insane department proper; he is assisted by a physician (*Oberarzt*). A second director controls the department for infirm patients. In addition, there are six assistant-physicians (one of whom, Dr. Otto, kindly conducted me), and a dispenser. The number of patients in Dalldorf at the time of the last report was 1,349; the daily average 1,329. The institution receives its patients in large measure from the *Charité*; they are mostly incurable. Nevertheless, many of the cases are highly interesting. The number of patients whose insanity is connected with gross lesions of the brain is exceptionally large; aphasia in different forms is met with frequently. In this connection the pathological department may be mentioned. It is well equipped, and the papers published by the medical staff in the "*Archiv f. Psychiatrie*," "*Zeitschr. f. Psych.*," and other Journals of the special kind, testify to the use made of the material at hand. Some paying patients are taken; the number may not exceed five per cent. of the total. They are only admitted when their circumstances are insufficient to meet the demands of a private asylum. They pay not less than one mark daily, and are treated just like the other patients. During the past year 72 were admitted.

The dormitories and wards—in connection with the latter are long corridors in which the patients promenade—are spacious, and well supplied with air and light. Mural decorations would not compare with those seen in many English asylums, being extremely simple; but sanitary requirements are well attended

to. About 20 men and 30 women are confined to bed daily, for the sake of quietness as well as for sickness. Many of the general paralytics lie on beds of powdered wood. This takes up the excreta, and is removed from time to time. The plan is much adopted in Germany, and originated, I was told, in Dalldorf.

The proportion of attendants to patients is 1-10. They are poorly dressed. Changes amongst them are frequent. Amongst the amusements provided for the patients are dances, concerts, and theatricals. There is a good library. Divine service is conducted by clergymen from Berlin.

Medical treatment resembles that used in England. Sedatives (chiefly sulphonal and paraldehyde) are used in much the same amount as here. Hypnotism has failed and drugs are discarded, as far as possible, in favour of food and occupation. The former is sufficient and good. Cost of patients per head per diem=1.96 mark. There are numerous and spacious side rooms; padded walls are dispensed with. Mechanical restraint is not in fashion, but strong dresses are employed for patients who destroy clothing, and seclusion is made use of upon occasion. The patients are employed on a very large scale, and in many trades. There are joiners, bootmakers, tailors, decorators, bookbinders, painters, glaziers, brush and cigar makers. In addition, during the past year the work of two healthy clerks was done in the office by patients. On the farm, in the grounds, in sewing rooms, and in wash-houses patients are daily employed. About twenty minutes' walk from the institution is a colony, consisting of two houses accommodating about 80 men who work out. The worth of the patients' labour during the year of last report is estimated at more than £1,600. As rewards for work done, beer, snuff, and tobacco are given. Many discharged patients are cared for by a sort of After-Care Association in Berlin (Hülfsverein).

Both at Dalldorf and at the Charité I received specimens of the forms in accordance with which the patient's history is taken; in thoroughness they are characteristically German. If answers are usually received to all the questions put down in these forms the reports must be of uncommon value, and the German public at once more educated and obliging than the English.

For some of the facts noted I am indebted to the official report upon the State asylums for the year ending March 31, 1890.

I am, Sirs, yours faithfully,  
EDWIN GOODALL.

Wakefield Asylum.

## PROVISION FOR PRIVATE PATIENTS.

*To the Editors of "THE JOURNAL OF MENTAL SCIENCE."*

SIRS,—On page 511 (being the President's Address) of the "Journal of Mental Science" for October, 1891, the following passage occurs: "The Lunacy Act encourages provision for such cases (meaning private patients), either attached to or separated from existing establishments; but so far as I can learn no public body has yet considered the advisability of building for them."

As the foregoing passage requires correction, and as I have not received any application for information, I hope you will allow me to state that the Committee of this asylum have not only considered the advisability of making such provision, but more than two years ago gave instructions to their architect (Mr. Geo. T. Hine) to design special blocks for private patients, 25 of each sex, in connection with the additions to, and alterations at, this asylum.

These designs were approved of and sanctioned by the Secretary of State and the Lunacy Commissioners, and the work is now in the hands of the builders.

I have reason to believe that this is the first County Asylum to provide

special accommodation for private patients under Sec. 255 of the Lunacy Act, 1890; but is it not a fact that, for many years, the County Asylum for Cornwall has had a special detached residence for private patients?

I am,

Your obedient servant,

Dorset County Asylum.

P. W. MACDONALD, M.D.

### Obituary.

ISAAC ASHE, M.B., T.C.D.

We regret to have to record the death of Dr. Isaac Ashe, at the Dundrum Criminal Asylum, on the 19th December, 1891.

Though not a medical man, or a member of the Association, yet we feel that the life-long connection which Mr. Haydon had with asylums makes it fitting that his death, on November 9, 1891, at the age of 69, should be noticed. The son of a naval officer, he was an early explorer of Australia, being the first to cross (some 50 years ago) from Melbourne to Gippsland. He spent only a few years in the Colony, and soon after his return to England became Steward to the Devon Asylum, Dr. Bucknill being the superintendent, and there began a life-long friendship between the two. We believe we are right in saying that they were among the first, if not the very first, who were enrolled as volunteers when the movement started. Later, Mr. Haydon was appointed to Bethlem, and was later called to the Bar, though we believe he never had a brief. He was Steward to Bethlem for 36 years, during which time he saw a succession of superintendents—from the first, after the removal of visiting physicians, Dr., afterwards Sir Charles Hood, Drs. Helps, Williams, Savage, and Percy Smith. All who knew him respected and loved him. He had as kindly a nature as it is possible to conceive, and the personal interest he took in the comforts of the patients was fully recognized by those who worked with him. He was loyal to his superintendent, and ever ready to aid him. His fine manly presence, his tactful goodness, were greatly missed when he resigned two years ago to enjoy too shortly his well-earned pension.

### CANDIDATES WHO PASSED THE EXAMINATION FOR THE CERTIFICATE OF PROFICIENCY IN NURSING, NOV., 1891.\*

*Royal Asylum, Morningside, Edinburgh.*

#### MALES.

John Barrie.  
Donald S. Fraser.  
John Fraser.  
James Grant.  
John Innes.  
Alexander Mackenzie.  
Daniel Burgess.  
John Hogg.  
Charles Tough.  
George Wilson (*Ayr District Asylum*).

#### FEMALES.

Jessie Hodge.  
Christina Leith.  
Mary Mather.  
Christina Watt.  
Jemima Watt.

\* It will be seen from the Advertisement-sheet that the Handbook for instruction of Attendants may be had direct from the publishers on special terms. The third thousand is

*Kirklands Asylum, Bothwell.*

## MALES.

## FEMALES.

Marjory Mc'Intyre.

*Holloway Sanatorium.*

## MALES.

## FEMALES.

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Leonard Dobbin Red.  
Philip Harmer.  
William Tom Osborn.

Violet Edith Ross.  
M. Frances Bromley.  
Mary Humphrey.  
Elizabeth Jupe.  
Sarah Jane Builder.

*Birmingham Asylum.*

## MALES.

## FEMALES.

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Arthur Prior.  
John Willcocks.  
William Hammersley.

Elizabeth Anne Hughes.  
Adelina Maria Bailey.  
Frances Ada Berks.

*Menston Asylum.*

## MALES.

## FEMALES.

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John Burton.  
William Webber Sampson.  
Albert Edward Mitchell.  
William Hamilton Swift.  
Theodore Ross Gates.  
James Graham.  
Arthur Lawrence Smith.  
Jonas Edward Roberts.

Harriet Allison.  
Frances Mary Browne.  
Annie Elgie.  
Phebe E. Allen.  
Mary Marshall.  
Annie Pyrah.  
Fanny Hansom.

*City of London Asylum.*

## MALES.

## FEMALES.

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William Hewlett.  
Henry House.

Harriet Bowyer.  
Mabel Taylor.  
Martha Driver.  
Ada Bennett.  
Janet Summers.  
Elizabeth Lamport.  
Harriet Budge.  
Harriet Kendrick.  
Alice Yates.

*West Riding Asylum, Wakefield.*

## MALES.

## FEMALES.

Mary Harriet Deacon.  
Hannah Simpson.  
Eleanor Whitehead.  
Catherine Edith Sibary.  
Lucy Thackray.  
Martha Dyson.  
Jane Copley.  
Annie Atkinson.  
Marian Conway.  
Edith Asquith.

*Wye House Asylum, Buxton.*

## MALES.

## FEMALES.

Thomas D. Leadbeater.

now nearly exhausted—a sufficient justification for the production of such a brochure. A second and revised edition will soon be called for, and, in that event, the Association will be asked to consider how the book can be improved as an education manual for attendants.



## THE ALVARENGA PRIZE IN MEDICINE.

We are glad to see that Dr. Bateman has been elected a Laureate of the Academy of Medicine of Paris, and had awarded to him the Alvarenga Prize for his well-known work on "Aphasia." For the same work Dr. Bateman was, some months ago, elected a Foreign Fellow.

---

*Appointments.*

BEAVER, A., M.B., C.M.Vict., appointed Second Assistant Medical Officer to the Berks Asylum, Moulsoford.

COOKE, J. A., M.R.C.S., L.R.C.P., appointed Junior Assistant Medical Officer to the Cheshire County Asylum, Macclesfield.

DUNCAN, J. H., M.B., C.M., appointed Clinical Assistant to the Dundee Royal Asylum.

DURHAM, A. E., M.A., M.B., B.C.Cantab., appointed Resident Clinical Assistant to the Bethlem Hospital, S.E.

EDGE, FREDK., M.D.Lond., F.R.C.S.Eng., appointed Third Resident Medical Officer to the Kent County Asylum, Barming Heath.

FORBES, A. D., M.B., C.M.Aber., appointed Assistant Medical Officer to the Grove Hall Asylum, Bow, E.

HALL, F. W., M.B., B.S., appointed Resident Medical Officer to the Eastern Counties Asylum for Idiots.

HAY, W. P., M.B., C.M., appointed Medical Assistant to the Inverness District Asylum.

LIPSCOMB, E. H., M.B., B.C.Cantab., appointed Medical Visitor to the Asylum, Harpenden.

LIPSCOMB, J. T. N., M.D., F.R.C.S.Eng., reappointed Medical Visitor to the Asylum, Harpenden.

MACKINNON, A. R., M.B., etc., appointed Fourth Resident Medical Officer to the Kent County Asylum, Barming Heath.

PIERCE, BEDFORD, M.D., M.R.C.P.Lond., appointed Resident Clinical Assistant to Bethlem Royal Hospital, S.E.

REICHARDT, E. N., M.B.Lond., appointed Assistant Medical Officer and Pathologist to the London County Asylum, Banstead, Surrey.

RORIE, JAMES, M.D., appointed Clinical Lecturer in Mental Diseases at University College, Dundee.

WARD, T. H., M.B., C.M.Edin., appointed Junior Medical Officer to the Devon County Asylum, Exminster.

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*The Editors do not hold themselves responsible for the views of Contributors whose names or initials, &c., are given.*

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EDITED BY

D. HACK TUKE, M.D.,  
GEO. H. SAVAGE, M.D.

"Nos vero intellectum longius a rebus non abstrahimus quam ut rerum imagines et  
radii (ut in sensu fit) coire possint."

FRANCIS BACON, *Proleg. Instaurat. Mag.*

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APRIL, 1892.

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MDCCCXCII.

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## *The Journal of Mental Science.*

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VOL. XXXVIII.

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### PART 1.—ORIGINAL ARTICLES.

*The Relationship between General Paralysis of the Insane and Syphilis.* By D. E. JACOBSON, M.D., Communal Hospital, Copenhagen.\*

I must confess that I approach the consideration of the relationship between general paralysis of the insane and syphilis with a certain degree of diffidence, seeing that here we have to deal with a question which is constantly being made the subject matter of discussion by modern alienists, and which in itself presents points of surpassing interest.

Much, certainly, that follows will be to many of my readers but a reiteration of old ideas, but I may still indulge the hope that some interest may be evoked for my subject by reason of its practical importance.

In every country we find the question respecting the affinity between general paralysis and syphilis regarded as a prominent subject for debate among the psychological problems of the day. Each community furnishes its contributions and its views; it is a subject for discussion at all psychological congresses, and journals of mental science of diverse nationality teem with the considerations of this ætiological problem. Innumerable, too, are the works, both small and great, which have been devoted to its study. Yet, notwithstanding all this energy, its solution is still far from being an accomplished fact, nor will the ensuing remarks tend, I fear, towards this desirable end. I can but endeavour to throw some ray of light on this "the darkest Africa" of psycho-pathology.

To Esmarch and Jessen † must undoubtedly be awarded

\* See the author's recent work, "Dementia Paretica hos Kirrden en Klinisk-Ætiologisk Studie," Copenhagen, 1891.

† "Allgemeine Zeitschrift für Psychiatrie," 1857, p. 20.

the honour of having been the first to suggest the theory of the syphilitic origin of general paralysis, but in spite of the labours of countless subsequent investigators we have apparently advanced no further on the road, so that an eminent authority (Kjellberg, of Upsala) at a medical meeting held in Sweden in 1888 felt bound to assert that "the relationship between general paralysis and syphilis is not even approximately established."

We may, however, review the history of the problem before us to see what manner of progress, if any, has been made in its consideration.

The seed sown by Esmarch and Jessen very soon found a fruitful soil in the Scandinavian communities, for the small size of these countries afforded a favourable facility for the frequently very difficult and delicate investigations into the previous life history of the patient. As early as 1860 Prof. Steenberg,\* of Copenhagen, laid down the aphorism of "no general paralysis without syphilis," a doctrine which Kjellberg† at the same time warmly defended in Sweden, and in 1874 Jespersen‡ maintained the same theory, based on his own exact researches into the clinical history of the cases of general paralysis which fell under his notice at the great Danish Asylum, St. Hans, between the years 1863 and 1872. He found that no less than 77·2 per cent. of these cases had had earlier syphilis, and that further more in every one indications were to be noted which led him to believe that the patient had previously been the subject of acquired syphilis. Notwithstanding these interesting results but few modern alienists have been found to give support to this "pure" doctrine of the syphilitic origin of general paralysis. And why is this? Because no one has yet been able definitely to trace the syphilitic infection to every case of general paralysis, and the frequency with which different investigators have detected it varies to an extreme degree.

In striking contrast to the above-mentioned doctrine we find that of another school who deny any connection whatever between the two diseases. Fournier,§ the chief exponent of this view, regards the coincidence as purely accidental if we are considering a case of true general

\* Steenberg, "Den Syphilitiske Hjørnelidelse," Copenhagen, 1860, p. 195.

† Kjellberg, "Upsala Universitetets Aarschrift," 1863, p. 56.

‡ Jespersen, "Skyldes den Almundelige Fremskrindende Parese Syphilis?" Copenhagen, 1874.

§ Fournier, "La Syphilis du Cerveau," Paris, 1879. Treizième Leçon.

paralysis. The reason, according to him, of the attributed connection between these two maladies lies in the circumstance that in a great number of instances the cases are not samples of true general paralysis, but rather are types of a disease which simulates general paralysis to such a degree as to mislead the observer, though the two, according to him, present symptoms of wide disparity. The syphilitic form, then, he regards as a different disease altogether, which presents its own clinical, anatomical, and prognostic characteristics. For this new affection he proposes the name of "general paralysis of syphilitic origin" on account of its likeness to genuine general paralysis. This doctrine, promulgated by Fournier, has found several eminent supporters in France, notably Christian,\* Voisin,† Sauret,‡ Ball,§ Baillarger,|| and Vernet,¶ and to some extent in Germany, the chief being Schüle,\*\* who distinguishes between the "classical" and the "syphilitic general paralysis," and Spitzka,†† who seems to hold a similar view. Laségue‡‡ finally leans towards Fournier's opinion. He regards the connection between the two affections as similar to that existing between epilepsy and epileptoid states, in which there may be wanting one or more of the definite symptoms of epilepsy, differentiating thus between a genuine general paralysis and conditions which he designates "paralysoïd," among which he proposes that syphilitic general paralysis shall be included.

Protests have, however, been made against this distinctive separation of a "syphilitic pseudo-paralysis" from genuine general paralysis, because it has really been found impossible to maintain the assumed diversity of their clinical and anatomical phenomena, and because one is bound by indisputable evidence to acknowledge that in proportion to the care exercised in our investigations so the more frequently do we find syphilis posing as an antecedent in the history of true general paralysis. Even in France influential voices have of late been raised against Fournier's dictum. Thus

\* Christian, "Archives de Neurologie," 1887, Septembre.

† Voisin, "Traité de la Paralyse Générale des Aliénés, Paris," 1879.

‡ Sauret, "Thèse," 1880; "Ref. Ann. Méd.-Psych.," 1880, S. 6, T. 3, p. 156.

§ Ball, "Leçons sur les Maladies Mentales," 1880-1883, p. 764.

|| Baillarger, "Ann. Méd.-Psych.," 1889, S. 7, T. 9, p. 206.

¶ Vernet, "Thèse," Nancy, 1887.

\*\* Schüle, "Klinische Psychiatrie," 1886, p. 396.

†† "Spitzka, "The Medical Congress at Washington," 1887.

‡‡ Laségue, "Ann. Méd.-Psych.," 1879, S. 6, T. 2, p. 301.



Régis,\* who up to 1885 declared himself an eager partisan of this theory, has recently (1888) † changed his opinion, declaring himself without reservation in favour of the view which regards the syphilitic form to be a true and genuine general paralysis. "One may, indeed, find," he observes, "true cerebral lesions of syphilitic origin, and for these and these only should the name of syphilitic pseudo-paralysis be preserved; and what is still more interesting and significant is the expression on this subject contained in the recent work of two of Fournier's pupils, Morrell-Lavallée and L. Bélières, ‡ who have come to the conclusion that the number of syphilitics among general paralytics appears to increase in direct proportion to the care exercised in analyzing the history of each patient.

In Germany Fournier's dual theory has on the whole been received with but scant favour, many clinical teachers, such as Mendel, § Rippling, || Goldstein, ¶ Ziehen,\*\* and Ziemssen, †† having given expression to statements setting forth their inability to subscribe to this assumed distinction.

At the last Congress held at Washington, Dr. Savage is reported to have said that it is impossible to establish a differential diagnosis between the general paralysis of syphilitic origin and that due to other causes, a judgment to which Dr. Kiernan ‡‡ had previously given expression in America.

The question then as to the connection between syphilis and general paralysis may thus be seen to be far from being settled; neither the "pure" or uniform theory of Steenberg, Kjellberg, and Jespersen, which formulates the doctrine of no general paralysis without antecedent syphilis, nor the dualism of Fournier, has been found to be satisfactory. The generality of scientists avoid either extreme, preferring the *media via*, though some show a strong inclination towards the syphilitic doctrine.

The theory, then, which finds the largest number of

\* Régis, "Manuel de la Psychiatrie," 1885.

† Régis, "Gazette Médicale de Paris," 1888, 23-26.

‡ Morrell-Lavallée and L. Bélières, "Syphilis et Paralysie Générale," Paris, 1889.

§ Mendel, "Dementia Paralytica." Eulenberg's "Real Encyclopädie der Gesammten Heilkunde," Aufl. ii., Bd. v., 1886.

|| Rippling, "Allg. Zeitschr. f. Psych.," 1881, Bd. 37, p. 687.

¶ Goldstein, "Allg. Zeitschr. f. Psych.," 1886, Bd. 42, p. 254.

\*\* Ziehen, "Neurol. Centralblatt," 1887, No. 9, p. 198.

†† Ziemssen, "Allg. Zeitschr. f. Psych.," 1889, Bd. 46, H. 2 and 3, p. 331.

‡‡ Kiernan (Chicago), "The Alienist and Neurologist," July, 1883.

adherents among modern alienists is that which recognizes the prominence of syphilis as a causative factor in the history of general paralysis, though the present state of our knowledge does not entitle us to regard it as a *conditio sine qua non*. In a certain proportion of cases we are still bound to assume that general paralysis can arise on a non-syphilitic base. At the Congress held at Copenhagen in 1884 this view was strongly supported by the scientific investigations of Rohmell,\* of the St. Hans Asylum, Denmark.

The explanations furnished by different inquirers as to the relationship between syphilis and general paralysis vary extremely. A small minority look upon syphilis as having a direct effect on the cerebral vascular system, regarding the general paralysis, therefore, as a true syphilitic lesion of the brain, and they deduce their reasoning from the investigations of Heubner,† according to whom characteristic specific changes are to be found in the cerebral vessels in all syphilitic cases, a conclusion which later researches have, however, proved to be unfounded (Friedlander,‡ Mendel,§ Ramaer,|| Buchholz,¶ and others). The majority, on the contrary, do not take this standpoint; they regard general paralysis as a cerebral disease arising in a brain impaired by previous syphilis, the syphilitic affection, in other words, acting as a predisposing factor, preparing the cerebral soil, weakening the organism, and rendering it less capable of resistance to other more direct causes, such as alcoholic and other excesses, the climacteric, etc. The paralytic affection is thus due to nutritive changes in the cerebral vessels produced by antecedent syphilis, these changes in the case of active congestion of the brain, the result of such direct causes, permitting the plasma and formed elements of the blood to pass through the walls of the vessels into the cerebral tissues, where they finally, through imitation of the neuroglia, engender a chronic diffuse peri-encephalitis. This view to me appears on the whole the most natural and unconstrained, as it admits of the solution of those cases in which

\* Rohmell, "Congrès International," etc., Copenhagen, 1884. "Compte-rendu," Tome iii., Section de Psychiatrie.

† Heubner, "Die luetische Erkrankung der Hirnarterien," 1874.

‡ Friedlander, "Centralblatt. für die Medic. Wissenschaften," 1876, Bd. 14, p. 66.

§ Mendel, *loc. cit.*

|| Ramaer, "Congres de Copenhagen," 1884. "Compte-rendu," Tome iii., Section de Psychiatrie, p. 89.

¶ Buchholz, "Centralblatt. f. Nervenheilkunde," 1889, No. 12.

a long period has elapsed between the acquirement of the one disease and the development of the other; of those, on the other hand, in which the interval between the two affections is of short duration, but in which the paralytic affection is hastened by cerebral strain and excesses; of those cases of paralytic onset in badly treated precursory syphilis; and of those exceptional cases in which general paralysis arises on a non-syphilitic base, where the organism has in a similar manner been undermined and affected by some other slowly acting poison, such as alcohol, nicotine, lead, phosphorus, mercury, etc. This theory, moreover, explains the non-occurrence of definite syphilitic cerebral changes in general paralysis, and why even an energetic anti-syphilitic treatment, undertaken early in a case of general paralysis, has no remarkable effect on its development. Mendel's\* experiments on living dogs give further support to this view, but reference to these cannot be made in this place.

Our next step must be to inquire on what grounds the supporters of the syphilitic theory of the origin of general paralysis base their doctrine. Primarily statistics teach them, so they believe, that syphilis is found far more frequently in the history of general paralysis than in the history of any other form of insanity, but the statistics either for or against the assumed frequency of syphilis anterior to general paralysis are extremely variable in value, much depending on the care with which the examiner has investigated, or has been in a position to investigate, the antecedents of his patients, and, furthermore, on the extent and quality of the material on which he bases his arguments; in some cases men and in others women only have been made the subject of inquiry, in others only the inhabitants of towns or the dwellers in country districts, and in others again the social grades have not been differentiated. The value of such computations in estimating the degree of connection between these two affections is therefore considerably lessened, and we need not deal with them any further here. Rieger,† in an able paper, has, however, given us statistical information of a more reliable character. He combines therein the classifications of ten different and trustworthy observers, and, by thus neutralizing the objections which might be urged against

\* Mendel, "Ueber Paralytischen Blödsinn bei Hunden. Sitzungsbericht der Königl. Preuss. Academie der Wissenschaften. Ref. Virchow-Hirsch," 1884, i., p. 199, and ii., p. 54.

† Rieger, "Schmid's Jahrbücher," 1886, i., Bd. 210, p. 88.

them individually, strikes a mean which goes nearer the truth than any previous statistical compilation. Among 1,000 non-paralytics he finds 39 to have been syphilitic and 961 non-syphilitic subjects, while among 1,000 general paralytics 399 were syphilitic and 601 non-syphilitic, or, in other words, syphilitics have a chance of acquiring general paralysis which is 16 to 17 times greater than that of non-syphilitics. This result in my opinion establishes an undoubted connection between general paralysis and syphilis, the extent of this connection forming a subject for further study.

Apart from the statistical standpoint a further argument in favour of the syphilitic theory may be found in the close resemblance to general paralysis presented by locomotor ataxy. In the latter disease syphilis has undoubtedly been shown to be the most important causative factor (Erb\* and Fournier† compute that 80 to 90 per cent. of tabetics have had syphilis), and both in their clinical and anatomical aspects locomotor ataxy and general paralysis exhibit points of marked similarity. We have in all probability merely to deal with a different localization of one and the same morbid process, according to Strümpell‡ and Jendrassik,§ while the former goes so far as to assert that "general paralysis is but a cerebral tabes."

The limitation of the disease to certain grades of nationality, its predominance in the one and its comparative infrequency in others also gives support to the theory of the syphilitic derivation of general paralysis. Thus Minor|| has shown that general paralysis is very rare among Russian Jews (perhaps the only advantage of being a Russian Jew!), and we may therefore assume that the influence of heredity in the production of this disease is extremely problematical, knowing as we do the strongly marked predisposition to the hereditary transmission of nervous diseases evinced by Jews of all nationalities, while we can easily understand its rarity among them when we assume syphilis to be its cause. Minor, indeed, finds syphilis to be much more rare among the Jewish than among other Russian communities. Of his

\* Erb, "Berl. Klin. Wehnschrft.," 1883, xx., No. 32, p. 481.

† Fournier, "De l'ataxie locomotrice d'origine syphilitique," Paris, 1882.

‡ Strümpell, "Neurol. Centralblatt," 1886, No. 9.

§ Jendrassik, "Deutsch. Arch. f. Klin. Med.," Bd. 43-46, p. 543. "Ref. Allg. Ztschrft. f. Psychr.," 1889, Bd. 46, H. 2 and 3, p. 329.

|| Minor, "Wjesbnik Psychiat.," 1888, vi. "Ref. Allg. Ztschrft. f. Psychr.," 1889, Bd. 46, H. 2 and 3, p. 330.



383 patients with nervous affections 260 were Jews and 123 Russians, of the former only .7 per cent., and of the latter 4.8 per cent., were the subjects of general paralysis; while 4.23 per cent. of the former and 21 per cent. of the latter presented a previous syphilitic history; in other words, we find general paralysis seven times more frequent among Russians than among Russian Jews, while the number of syphilitics was five times greater among the former than the latter.

Finally, the theory appears to gain indirect support from the incontestable fact that general paralysis is far more rare among women than among men; no other reason than that syphilis is the cause of general paralysis can be adduced to explain the fact that the latter affection almost always attacks women in the large towns and the lowest grades of society, while authors of every nationality have proved that many of their female general paralytics have in past years been the devotees of *Venus vulgaris* (among my own cases 25 per cent.). It appears to me that greater value would attach to this theory if the antecedent occurrence of syphilis among the plurality of female general paralytics could be firmly established, for such a proof would be of far greater importance than its establishment among males; but not only is the occurrence of syphilis less frequent among women, but if it is often difficult to discover whether a man has had syphilis in his earlier days, the difficulty is greatly enhanced when we have to deal with women. We frequently have before us as patients individuals whose names, having been changed on marriage (and most of the female general paralytics, 77.6 per cent. of my own cases, are married!), we are unable to trace their earlier misdeeds in the records of lock hospitals (as we frequently may do with men), while, furthermore, we often have the delicate duty thrown on us of having to penetrate into their inner lives, for it not unfrequently happens that patients are to be met with who have been infected by their husbands without being cognisant of the fact, for women often do not observe the primary syphilitic indications; and, finally, we have to deal with subjects advanced to such a stage of dementia that their earlier delinquencies have been completely forgotten.

The statistics that have been published of the paralytic affection among women are not very encouraging to a partisan of the syphilitic theory, but they furnish the best evidence of the difficulties that beset us when we endeavour

to discover an earlier syphilitic history in a female case of general paralysis.

The following data are given in chronological order, and though but scanty, are the only statistical evidences furnished by the literature of general paralysis:—

Sandberg*	...	2	syphilitics among 3 female paralytics =	66·6	per cent.
Winget†	...	4	"	5	" = 80 "
Siola‡	...	3	"	12	" = 25 "
Jung§	...	3	"	95	" = 3·15 "
Obersteiner	...	4	"	340	" = 1·17 "
Reinhard¶	...	25	"	87	" = 28·7 "
Goldstein**	...	0	"	3	" = 0 "
Magnan††	...	{ 1 certain 4 uncertain }		100	" = — "
Régis‡‡	...	4	"	4	" = 100 "
Greppin§§	...	4	"	26	" = 15·38 "

Mickle,||| in his table of "exciting causes," attributes to "venereal diseases" a percentage of ·8 as occurring in women. Ziehen¶¶ has, however, found the number of syphilitic female general paralytics in the Asylum of Jena to be between 30 and 40 per cent.

On account of the inadequacy of the statistical information supplied by the above enumerated tables, founded as many of them are on very few cases, and by reason of the importance of the question, I have thought it of some interest to examine in detail the material afforded by the large Danish Asylum, St. Hans. I venture to assert that the means at my command have been of greater value than any other that have hitherto been utilized, as they embrace all the cases of general paralysis occurring in women that have been treated during the twenty-seven years in which Professor Steenberg has held office as medical superintendent, and, further, because the limited area of our country most probably admits of a stricter investigation into the previous life history of each

\* "Norsk. Magazin for Lægevidenskaben," Christiana, 1868, Bd. 22, p. 1.

† "Norsk. Magazin for Lægevidenskaben," Christiana, 1869, Bd. 23, p. 561.

‡ "Charité Annalen," Berlin, iv., p. 453.

§ "Allg. Zeitschrft. f. Psychiatr.," 1878, Bd. 35, p. 627.

|| "Wien. med. Wchnschrft.," 1883, No. 33-34.

¶ "Allg. Zeitschrft. f. Psychiatr.," 1885, Bd. 41, p. 453.

\*\* "Allg. Zeitschrft. f. Psychiatr.," 1886, Bd. 42, p. 254.

†† "Cit. in Morrell-Lavallée and L. Bélières," *loc. cit.*, p. 116.

‡‡ "Gaz. méd. de Paris," 1883, 23 and 26.

§§ "Allg. Zeitschrft. f. Psych.," 1890, Bd. 46, p. 553.

||| Mickle, "On General Paralysis of the Insane," 2nd Ed., London, 1886, p. 263.

¶¶ "Neurol. Centralblatt," 1887, No. 9, p. 198.

patient than can possibly be furnished by larger countries with their teeming populations. I have the records of altogether 116 cases of female general paralytics. Among them I find—

Syphilis acknowledged in 37 cases=32 per cent.

Syphilis most likely in 13 cases=11 per cent.,

or a total of 43 per cent. But this result does not sum up all the facts to be obtained. In a large number of cases, as we have remarked before, we are bereft of every antecedent history, because the patients when admitted are in a very weak-minded amnesic condition. This objection refers to 16 of the above cases, and if we consider only the remaining 100 we obtain—

Syphilis acknowledged in 37 per cent.

Syphilis most likely in 13 per cent.,

and by “most likely”—I mean those in which we have found that the patients had been married to men who had suffered during cohabitation from syphilitic eruptions, etc., or those who have lived impurely, inducing “venereal diseases,” and several miscarriages, or finally those who have presented several marks—the signs in all probability of earlier syphilis. According to this classification we find syphilis with fairly absolute certainty in about half the cases recorded, a result which, in my opinion, must inspire the advocates of the syphilitic theory with confidence.

A considerable proportion of the remaining fifty cases under consideration moreover present a greater or less degree of probability of earlier syphilitic infection, the patients having been prostitutes, or, at any rate, having led an immoral life; the life history of 15 of these was thus traced out, and we may consequently safely deduce from a general survey of these cases that syphilis has been found with more or less certainty in altogether 65 per cent. of the female cases of general paralysis occurring in the St. Hans Asylum.

To appreciate this result more fully we must examine the other assignable causes of general paralysis to determine their relative frequency, as compared with that of syphilis. I have taken as impartial a view of the question as possible, but I must confess that I can find no cause which can even approximately vie with syphilis in frequency as an originating factor. Thus I have found an alcoholic history only in 27 cases (or 23 per cent.), and in 11 of these there had been

previous syphilis, in three a great probability of syphilis, while only in 13 cases did the alcoholic antecedent stand alone. As to heredity, I could obtain information only in one-third of all the cases, a matter of little surprise when we reflect how difficult it is to obtain any satisfactory evidence on just this very point, for amnesia here comes as a stumbling block more than with reference to any other point of the patient's life history, while the friends are necessarily frequently ignorant of the matter. In a total of 43 cases I find—

Heredity in 12 cases=28 per cent.

No heredity in 31 cases=72 per cent.,

and of the former four had in addition had syphilis, one had an alcoholic, and one a traumatic history. Other causes do not rank with any noteworthy frequency. Emotional causes of all kinds were to be found only in 22 cases, traumatic influences only in three, heat as a cause in one, chronic phosphorus poisoning in one, and numerous pregnancies in one case. Many authors incline to the belief that the climacteric is of great ætiological importance in determining the origin of general paralysis, but I found only 40 per cent. of the women in the period of life thus designated, in 40 per cent. the disease began before 40, while in 20 per cent. it had delayed its appearance until the patients had passed their 50th year. We may from these considerations, therefore, conclude that no other cause approaches syphilis in the frequency of its occurrence, and syphilis is found with less or greater certainty in more than three-fifths of all the female instances of general paralysis which have fallen under my notice.

As I have thus been able to substantiate the frequency of antecedent syphilis in general paralysis, I have at the same time, I hope, strengthened the arguments in favour of the modified syphilitic theory of the origin of that disease, and my purpose in writing this paper has thus been obtained.

To avoid any misapprehension I may finally add the remark that I do not, of course, exclude the possible effect of all other causes than syphilis, and in some cases alcohol, lead, nicotin, etc., but I only regard the former as auxiliary causes, that is to say, that where the brain has not been previously affected by syphilis, alcohol, etc., general paralysis will not arise, induced only by one or more of them.



*Genius and Insanity.* By ARTHUR MACDONALD, Ph.D.,  
Docent in Applied Ethics, Clark University, Worcester,  
Mass.

In the study of genius and insanity we shall endeavour to follow the empirical rather than the polemical method. This will require the statement of many facts, gathered from different sources, but principally from the instructive works, "*L'Homme de Génie*," by Cesare Lombroso, and "*Psychologie Morbide*," by Moreau (de Tours).

The natural difficulty of obtaining facts of an abnormal or pathological nature, and in other respects unfavourable, is obvious. But authors have not only concealed such data, but have not considered them of importance. It is due to the medical men whose life brings them closest to abnormal reality, that such facts have been gathered.

If it be said that the abnormal or exceptional must be taken with some caution, because it is natural for the mind to exaggerate striking characteristics, it must be remembered that such facts, when unfavourable to reputation, are concealed. In the study of any abnormal individual, as the insane or criminal, one finds much more concealed than is known.

### *Insanity.*

It is generally accepted by alienists that a large part of mental affections are the result of degeneracy: that is to say, it is the action of heredity upon the offspring of drunken, syphilitic, insane, and phthisical parents. Sometimes a serious wound on the head has the same effect.

The most frequent characteristics of this degeneracy are: Apathy, loss of moral sense, impulsiveness, propensity to doubt, psychological disproportion, caused by an excessive development of certain faculties or by absence of others, verbosity or exaggerated acuteness, extreme vanity or eccentricity, excessive preoccupation with one's own personality, mystical interpretation of the most simple facts, abuse of symbols or special terms, which sometimes suppress every other form of expression. Lombroso finds also these characteristics: Irregularity in teeth, excessive asymmetry of face and head, left-handedness, stuttering, rachitism, phthisis, excessive fecundity, neutralized later by abortion or complete sterility, preceded by anomalies which always grow more in the children; face and head

voluminous or very small, smallness and disproportion of body, and sexual precocity.

Some definitions of insanity are : Insanity is a disease of the person, resting upon and caused by a brain affection (Schüle).<sup>\*</sup> Here mental compulsion constitutes the essence of mental derangement, which cannot be reasoned away by logic or obstructed by the will. This compulsion is grounded in the fundamental organic brain disease, which gives it control of the mental faculties ; we then cease to be ourselves.

Every mental disease is a reaction of a nervous system impaired in its nutrition, and begins and ends with melancholia (Arndt).<sup>†</sup>

Insanity can be defined, from an anatomical point of view, as a diffuse disease of the brain, including the so-called nutritive changes, especially the inflammatory and degenerative. From a clinical point of view, insanity is a special kind of cerebral disease distinguished by functional disturbances of the mind ; mental diseases are a special class of cerebral diseases (Krafft-Ebing).<sup>‡</sup> Krafft-Ebing suggestively adds that brain and nervous disease are of the same species, and that the passage from one (chorea, hysteria, epilepsy) to the other is frequent in individuals of the same family.

### Genius.

Holding in mind the general idea and characteristics of insanity, we may take up the consideration of genius. As an introduction, we can do no better than to listen to the testimony of genius itself.

Aristotle, the father of philosophers, remarks that, under the influence of a congestion of the head, there are persons who become poets, prophets, and sibyls ; thus, Mark of Syracuse, a poet to be recommended as long as the mania endured, could not compose as soon as health returned.

Plato says, in the "Phædus," that delirium is no evil, but a great benefaction, when it emanates from the divinity. Democritus goes still further, and makes insanity an essential condition of true poetry. Cicero speaks of the *furor poeticus* ; Horace of the *amabilis insania*. Diderot writes, "Oh, how close the insane and men of genius touch ; they are chained, or statues are raised to them." Lamartine speaks of this mental disease called genius ; Pascal, of extreme mind as akin to extreme madness.

<sup>\*</sup> "Klinische Psychiatrie."

<sup>†</sup> "Psychiatrie."

<sup>‡</sup> "Lehrbuch der Psychiatrie."

However paradoxical these sayings may seem, a serious investigation of facts will show that the resemblances between the highest mental activity and that of the diseased mind are numerous, and not a few specialists are inclined to the conclusion that genius is a neurotic phenomenon, a semi-morbid state of the brain, a veritable nervous erethism.

### *Physical Characteristics.*

In general, men of genius are small in stature and pale in colour; this paleness is a sign of physical degeneracy, and is most frequent in those morally low. Many are rachitic, and some are known to have had cranial and cerebral lesions.

Vico, Clement VI., and Malbranche had their skulls fractured. Pericles, Romagnosi, Bichât, Kant,\* and Dante had cranial asymmetry. Dante had an abnormal development of the left parietal bone, and two osteomata in the frontal bone. Kant was ultra-brachycephalic (88·5); the disproportion between the upper part of the occipital bone and the lower part is noteworthy; the same is true as to the minimum smallness of the frontal arc as compared with the parietal.

The "soudures" of the sutures in the crania of Byron, Pascal, and Humboldt are to be noted. Descartes was sub-microcephalic. Milton, Linné, Cuvier, and Gibbon were hydrocephalic (?) Dante and Gambetta had small cranial capacity. Rousseau had hydropsical ventricles. Gauss† and Bichât had a more developed left hemisphere than right.

Bischoff and Rüdinger, in a study of eighteen brains of German *savants*, have found remarkable congenital anomalies of the cerebral convolutions.

Thus, according to Lombroso, "as genius is often expiated by the inferiority of certain psychical functions, so it is also accompanied by anomalies in that organ which is the source of its glory."

### *General Facts.*

Æsop, Virgil, Demosthenes, Alcibiades, Erasmus, Cato of Utica, Charles V., stammered.

Sterility is not uncommon in great men, as Dryden, Addison, Pope, Swift, Johnson, and Goldsmith.

Many were celibates, as Kant, Newton, Beethoven, Gassendi, Galileo, Descartes, Locke, Spinoza, Bayle, Leibnitz, Hume,

\* Kupfer, "Der Schädel Kant's," 1881.

† Wagner, "Das Hirngewicht der Menschen," 1870.

Hobbes, Gibbon, Macaulay, Leonardo da Vinci, Michael Angelo, Handel, Mendelssohn, Voltaire, and others.

According to Lombroso "almost all men of genius differ as much from their fathers as from their mothers, which is a characteristic of degeneracy, and thus the physical resemblances between geniuses of different epochs and races are noticed, as in Julius Cæsar and Napoleon. They sometimes lose their national type, and it occurs in the most noble traits, as elevation of forehead, remarkable development of nose and head, and vivacity of the eyes." A parallel phenomenon exists in cretins, criminals, and the insane. Humboldt, Virchow, Bismarck, and Helmholtz do not have the German physiognomy. Byron did not have either the physiognomy or the character of the English.

Precocity is a characteristic of genius and insanity. Dante composed verses at nine; Tasso at 10; Comte and Pascal were great thinkers at 13; Niebuhr at seven; Jonathan Edwards at 12; Bossuet at 12; Voltaire at 13; Goethe before 10; Victor Hugo at 15; Pope at 12; Fénelon at 15; Mirabeau at 10; Handel and Beethoven composed at 13; Mozart gave concerts at 6; Raphael was renowned at 14. Lombroso considers this precocity unhealthy and atavistic—it is observed among all savages. The proverb that a man who has genius at five is insane at 15 is often verified in our asylums. The sons of the insane are often precocious children. But some great men were regarded as poor pupils, as for instance Pestalozzi, Wellington, Balzac, Humboldt, Boccacio, Linné, Newton, and Walter Scott.

The unconsciousness and spontaneity of genius resemble epileptic attacks (Lombroso). Hagen makes irresistible impulse one of the characteristics of genius. Haydn attributes his "Creation" to a mysterious grace descending from on high. Some men of genius, who have observed themselves, describe their inspiration as a gentle fever, during which their thought becomes rapid and involuntary. Such is the thought of Dante, when he says:

" . . . l'mi son un che, quando  
Amore spira, noto ed in quel modo  
Che detta dentro vo significando."\*

Napoleon said that the chance of battles is the result of a moment of hidden thought. Mozart avowed that his musical inventions came involuntarily, like dreams. Montesquieu outlined "L'esprit des lois" in a carriage. Socrates says

\* "I am so made that when love inspires me, I attend: and according as it speaks in me I express myself."



that poets create, not by reflection, but by natural instinct. Voltaire said, in writing to Diderot, that all manifestations of genius are effects of instinct, and that all the philosophers of the world together could not have given "*Les animaux malades de la peste*," which La Fontaine composed without knowing even what he did. According to Goethe, a certain cerebral irritation is necessary to poets. Klopstock declared that in dreams he had found many inspirations for his poem.

Thus, as the great thoughts of great men and the deep convictions of prophets and saints develop spontaneously, so it is with the ideas of the insane.

Boileau and Chateaubriand could not hear a person praised, even their shoemaker, without feeling a certain opposition. Schopenhauer became furious and refused to pay a bill, in which his name was written with a double "p." Such manifestations of unhealthy vanity are very similar to the ambitions of monomaniacs.

Geniuses are inclined to misinterpret the acts of others, consider themselves persecuted, and find everywhere causes of suffering and melancholy. These are well-known tendencies of the insane.

Originality is very common, both to men of genius and the insane, but in the latter case it is usually without purpose.

*Biographical Facts Bearing upon Insanity and Allied Nervous Diseases.*

Socrates, though not positively insane, had hallucinations. He would dance and jump in the street with no apparent reason. The demon of Socrates which inspired him was without doubt a hallucination.

Lucretius was attacked with intermittent mania. Bayle says this mania left him lucid intervals, during which he composed six books: "*De Rerum Naturâ*." He was forty-four years of age when he committed suicide.

The mother of Charles V. was insane and deformed; his grandfather, on his mother's side, died at 62 in a state of deep melancholia. Charles himself stammered, and had epileptic attacks during his youth.\* His retreat to the monastery is known, where he had the singular phantasy of celebrating his own funeral rites.

Cromwell, when young, had a hallucination in his room: suddenly the curtains opened and a woman of gigantic stature appeared to him, announcing his future greatness.† Later in

\* Michelet.

† Fleury, "*Histoire d'Angleterre*."

life he had violent attacks of melancholic humour. His moral life was influenced by a sickly and neuropathical constitution which he had at birth. His brothers died in their infancy. One of his daughters died of chagrin.

Richelieu, the cardinal, had an elder brother who was a singular man, committing suicide because of a rebuke from his parents. The sister of Richelieu was insane; Richelieu himself had attacks of insanity; he would picture himself as a horse, but afterwards would have no remembrance of it.

Malebranche heard distinctly in him the voice of God. Descartes, after a long retirement, was followed by an invisible person, who urged him to pursue his investigations after the truth.

Goethe was sure one day of having perceived the image of himself coming to meet him. His mother died of an epileptic attack.

The pathetic insanity of Rousseau and the ecstatic hallucinations of Swedenborg are well known.

Hegel had the mania of greatness. He said: "I can say with Christ not only that I teach the truth, but I am myself the truth." Hegel's sister was insane; she drowned herself.\*

Comte was attacked in 1826 with mental alienation, remaining in an insane asylum a year. He also had the mania of greatness in thinking that he was the High Priest of humanity.

Newton was subject to vertigo. In the latter years of his life he fell into a melancholia, which deprived him of all thought.† He was also for some time in a species of mental stupor. In a letter to Pepys he says that he passed some months without having his "former consistency of mind."‡

Swift died insane.

Chateaubriand attempted suicide. He says himself that his chief fault is weariness, disgust of everything, and perpetual doubt.§ His father died of apoplexy. He was subject a long time to convulsive movements of the arm. His brother was an eccentric man and partially insane, given to all vices, and dying of paralysis.

George Sand says that when about 17 years of age she became deeply melancholic, that later she was tempted to suicide; that this temptation was so vivid, sudden, and strange

\* "Revue des Deux Mondes," Avril, 1850.

† Zimmerman, "De l'Experience."

‡ Newton, par P. de Rémusat, "Revue des Deux Mondes," 15 Décembre, 1856.

§ "Mémoires d'outre-tombe;" see "La Presse," 29 Octobre, 1843.

that she considered it a species of insanity. "This took the form of a fixed idea, and caused at times monomania." This idea was awakened usually by the sight of water, or a precipice, loaded firearms, or a vial containing a poisonous substance. The father of George Sand was subject to similar spells.\*

Walter Scott, during his infancy, had precarious health, and before the age of two was paralyzed in his right limb. He had a stroke of apoplexy. One day he had a vision; he had just learned of the death of Byron. On coming into the dining-room he saw before him the image of his dead friend; on advancing towards it, he recognized that the vision was due to drapery extended over the screen.†

Beethoven was naturally bizarre and very irritable. He became deaf, and fell into a profound melancholia, in which he died. His death was premature.

Mohammed was epileptic. He lost his father in infancy, and his mother in childhood. He was a travelling merchant, and married a wealthy widow 15 years older than himself. He used to live alone in a cave; he had interviews with the angel Gabriel. His revelations began with visions in sleep; he persistently claimed to be a messenger from God, receiving his first revelation at the age of 42.

Raphael experienced temptations to suicide. He himself says:—"I tied the fisherman's cords, which I found in the boat, eight times around her body and mine, tightly as in a winding sheet. I raised her in my arms, which I had kept free, in order to precipitate her with me into the waves . . . at the moment I was to leap to be swallowed for ever with her. I felt her pallid head turn upon my shoulder like a dead weight, and her body sink down upon my knees."‡

Tacitus had a son who was an idiot.

Quintilian had two sons die at an early age, both of whom were very precocious.

Pascal,§ from birth till death, had general nervous suffering. At one year of age he fell into a languor, in which he could not see water without manifesting great outbursts of passion; and, still more strange, he could not bear to see his father and mother near one another. In 1627 he had paralysis from his waist down, so that he could not walk without crutches. His feet were as cold as marble. This condition continued about

\* George Sand, "*Histoire de ma vie.*"

† "*Edinburgh Medical and Surgical Journal,*" Jan., 1843.

‡ Raphael, "*Pages de la vingtième année.*"

§ "*L'Amulette de Pascal,*" 1846.

three months. During his last hours he was taken with terrible convulsions, continuing for a day, when he died. The autopsy showed peculiarities: His cranium appeared to have no suture, unless perhaps the lamboid or sagittal. The substance of a large quantity of the brain was very much condensed. Opposite the ventricles there were two impressions, as of a finger in wax. These cavities were full of clotted and decayed blood, and there was, it is said, a gangrenous condition of the dura mater.

Pope was rickety. He had hallucinations; he seemed one day to see an arm come out of the wall, and he inquired of his physician what this could be.

Mozart's musical talent was manifested at three years of age; between four and six he composed with expertness.\* He was subject to fainting fits before and during the composition of his famous "Requiem." He died at thirty-six of cerebral hydropsy. He had a presentiment of his approaching end; he always thought that the unknown person who presented himself to him was not an ordinary being, but surely had relations with another world, and that he was sent to him to announce his end.† Mozart was convinced that the Italians wished to poison him.

Cuvier died of an affection of the nervous centres. The autopsy showed a voluminous brain. He lost all his children by a fever called "cerebral."

Cæsar was epileptic, of feeble constitution, with pallid skin, and subject to headaches.

Molière suffered from convulsions. The least delay or disarrangement put him into a convulsion, and prevented him from waking for a fortnight. He had numerous attacks of melancholia.

Napoleon had a bent back, an involuntary movement of the right shoulder, and another movement of the mouth from left to right. When in anger, according to his own expression, he looked like a hurricane. He felt a vibration in the calf of his left leg.‡ Having a very delicate head, he did not like new hats. He feared apoplexy. General Rapp, desiring to speak with him, entered his room, but found him so preoccupied that he did not notice his arrival. The General, seeing him immobile, thought he might be sick, so made a noise on purpose. Napoleon immediately turned round, and,

\* G. de Chadenil, "Le Siècle," 12 février, 1858.

† See "Vies de Haydn, de Mozart et de Métastase," Paris, 1817.

‡ See "Memoires de Saint-Hilaire," t. iii., p. 341.



seizing Rapp by the arm, said to him: "See up there!" The General did not respond. "What," said Napoleon, "do you not discover it? It is before you, brilliant, becoming animated by degrees; it cried out that it would never abandon me. I see it on all great occasions; it orders me to advance, and it is to me a constant sign of fortune."

Some great men have believed in the existence of a genius-protector, and there is little doubt but that many of their hallucinations have aided in the execution of their plans.

Voltaire, like Cicero, Demosthenes, Newton, and Walter Scott, was born under the saddest and most alarming conditions of health. His feebleness was such that he could not be taken to church to be christened. During his first years he manifested an extraordinary mind. In his old age he was like a bent shadow.\* He had an attack of apoplexy at the age of 83. His autopsy showed a slight thickness of the bony walls of the cranium. In spite of his advanced age there was an enormous development of the encephalon.†

Linné, a precocious genius, had a cranium hydrocephalic in form. He suffered from a stroke of paralysis. At the end of one attack he had forgotten even his name. He died in a state of senile dementia.

Madame de Stael died in a state of delirium, which lasted several days, and according to some authors several months. Moreau of Tours says that she had a nervous habit of rolling continually between her fingers small strips of paper, an ample provision of which was kept on her mantelpiece. She used opium immoderately. She had a singular idea during her whole life—that she should be wrapped in fur before burial, as if she was afraid of being cold in the tomb.

Henry Heine died of a chronic disease of the spinal column.

Michel Angelo,‡ while painting "The Last Judgment," fell from his scaffold, and received a painful injury in the leg. He shut himself up, and would not see anyone. Bacio Rontini, a celebrated physician, came by accident to see him. He found all the doors closed. No one responding, he went into the cellar, and came upstairs. He found Michel Angelo in his room, "resolved to let himself die." His friend, the physician, would not leave him. He brought him through the peculiar condition into which he had fallen.

\* Ségur, "Mem.," t. i.

† R. Parise, "Philosophie et Hygiène," p. 296, v. i.

‡ "Histoire de la peinture en Italie," t. ii., p. 377. (Réveillé-Parise).

*Conclusion.*

Whether the above facts, to which many more might be added, show or not that genius and insanity belong to the same category, they indicate at least that they touch in many points. Thus the frequency of delirium, the numerous signs of degeneracy, the commonness of epilepsy, precocity, and melancholia, the tendency to suicide, and the special character of inspiration favour the idea that genius is a mental and degenerative disease.

If this conclusion is admitted, let no one suppose that what is high and noble in genius is lessened in value. Any analysis that may show the closest relation to insanity, or even crime, cannot change genius itself.\*

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*A Note on Cocainism.* By CONOLLY NORMAN, M.D., Richmond Asylum, Dublin.

The dangers to be apprehended from the abuse of cocain are probably hardly yet quite realized, at least in this country. A great deal of harm has undoubtedly been done of recent years by the use of cocain as a help to break off the morphia habit. An exaggerated estimate of the assistance to be obtained from the former drug has been formed by such writers as Freund, and although Lewin and Erlenmeyer have warned us not to fly from Scylla to Charybdis, still it is to be feared that the notion lingers that cocain may be used advantageously and safely for this purpose. Nothing can be more mistaken. Cocain is more seductive than morphia; it fastens upon its victim more rapidly, and its hold is at least as tight. Cocain solutions are probably somewhat too freely prescribed in cases of disease of the nose and naso pharynx. Patients who use the drug in this way become very soon acquainted with its agreeable effects. Several cases have been recorded by American authors of cocain habit arising thus. That cocain has not been even more extensively misused is probably due to its being still a comparatively new drug, and also in part to its costliness. Up to the present time the largest number of its victims appear, unfortunately, to have been medical men.

Cocain owes its special dangers to three causes. First, it is particularly treacherous. Secondly, it produces early mental

\* The writers of signed articles are alone responsible for their statements and opinions.—EDS.

breakdown, both in the moral and intellectual spheres. Thirdly, it is intensely toxic, bringing about destructive tissue change after a comparatively short period of abuse. Taking the last first, we know that alcoholic poisoning is usually a slow process, while morphia may be taken even in very large quantities for years without producing any serious structural changes in the viscera. In fact we recognize no distinct pathological results of morphia poisoning. On the other hand the marasmus of chronic cocain poisoning, appearing early and developing with extreme rapidity, is but one indication of the serious organic changes that are produced. Convulsions, similar, as Richet points out, to those of cortical epilepsy, have been noted in a great number of cases. In at least one recorded case death occurred in an epileptiform attack. In animals poisoned with cocain remarkable rise of temperature has been observed by Mosso, Reichert, and others. Acute poisoning in animals kills by asphyxia, chronic poisoning, as Zanchevski shows, is accompanied by albuminous degeneration of the ganglionic cells in the medulla oblongata and spinal cord, as well as of the nerve cells of the heart ganglia, and of the liver cells. In other more advanced cases this author has found atrophic changes with vacuolation in the cells of the medulla and cord, fatty degeneration of the muscular fibres of the heart, and atrophy of the liver cells. Degenerative changes also occurred in the arterial coats, particularly in the spinal cord. Perhaps organic changes similar, but less in degree, account for the slowness and difficulty in recovering from the cocain habit, and the liability to dangerous collapse which exists during the process of withdrawing the drug.

The treacherous and insidious character of cocain results from the fact that when taken in small doses it produces at first apparently nothing but a slight degree of exaltation, a sense of well-being, a feeling of mental and bodily activity, of general satisfaction and good humour, that is most agreeable. There is no mental confusion which the consumer of cocain is conscious of, and the only overt symptom he betrays at this stage is more than natural talkativeness. The hypnotic effects when they appear are not overwhelming, and there is no headache, no nausea, and no confusion next day. Thus cocain is probably the most agreeable of all narcotics, therefore the most dangerous and alluring. It is to be feared that these peculiar qualities may indeed conduce to raise this drug in the future to the bad eminence of being, as Erlenmeyer says, the third great scourge of the human race (alcohol and opium being the

first and second). Like several other observers I have satisfied myself by experiments on healthy persons that the agreeable results described actually follow the ingestion of small doses of cocain, and this fact impresses one strongly with a feeling of how seductive this drug would be to the neurotic or debilitated. Of course, as is the case with all narcotics, small doses soon lose their effect, and hence a rapid increase is necessary.

The rapidity with which mental symptoms of a grave character appear is remarkable in cases in which increasing quantities of cocain are taken. Within three months marked indications of degeneration, loss of memory, hallucinations, and suspicions deepening into persecutory delusions have been found.

I have seen three cases of cocaineism. For certain reasons I am unable to describe them in as much detail as I should wish. In one, cocaine had been tried as a substitute for morphia, and the patient soon found he had taken unto himself seven devils worse than the first. In another cocaine had been originally prescribed for a painful affection of the nose. In a third a patient sought a new stimulant after having from time to time tried to combat "neurasthenia" with alcohol and morphia. In the first and third cases there was a very bad family history. In the second there seemed to be no contributing agent, except, perhaps, overwork. In the first case the mental symptoms, which appeared about a year and a half after the use of the drug had been begun, were (1) hallucinations of hearing with persecutory ideas. Patient constantly heard voices making vile and indecent charges against him. Sometimes he accused those about him of giving utterance to these abominations, at others he fully recognized their subjective and morbid nature. (2). Sexual excitement of a depraved nature leading, though the patient was no longer young, to frequent very irregular modes of gratification. (3). Loss of the sense of the passage of time. This patient, after several efforts to break off the habit, and several relapses, went from bad to worse. The delusions became more general and more organized, and he was now confined in an asylum suffering apparently from chronic paranoia. The second patient was an elderly man engaged in an active and arduous business. After six months' use of cocaine he fell into a state of such mental hebetude and weakness of memory that he was unable to attend to his work. His sleep was broken and irregular. He suffered from trance-like conditions, in which he did and said things of



which he had no subsequent recollection. He was tormented by sexual excitement, and sometimes sexual hallucinations occupied his mind in his half-dreamy state. After desperate efforts, accompanied by much depression and distressing debility, he shook off the cocain habit, and is, at least for the time, cured. The third patient was a young man with a strong neurotic taint, who had been personally addicted to every form of dissipation, and whose health had consequently suffered. He took to cocain out of a whim, or the mere desire for a fresh intoxicant. It was impossible to be sure how long exactly he was addicted to the poison, or to what doses he went, as he was wholly unreliable, but there is reason to think that he had not been taking cocain for a longer period than six months when he came under notice. He was then pale, emaciated, with dilated pupils, muscularly feeble, mentally depressed, suspicious, and restless. His memory was failing. He was furtive and shifty in manner, and he had among other things quite forgotten to tell the truth. He thought he was dying, and that everyone saw his vice in his face. He had vague notions that his relatives were against him. The immediate cause of his seeking advice was the occurrence of visual hallucinations, resembling those of delirium tremens—small animals creeping about him, particularly at night in bed. Sometimes he spoke collectedly of these as recognized hallucinations. It was satisfactorily made out that he had not been taking alcohol in excess within several months. Abstention from cocain was accompanied by a pitiable condition of querulous depression, but was, nevertheless, followed by very marked improvement. Before recovery was complete the patient changed his residence, and was lost sight of. In this case the sexual passions seem to have been always urgent, but it appeared that cocain had the effect of at first very much exciting and finally depressing their activity.

It is important to observe that undue sexual excitement, abnormal voluptuous sensations, and the like, have been noticed as symptoms by several authors. Richardson records a case occurring in a modest, married woman who exhibited violent erotic delirium after the application to the nasal cavity of a small quantity of a ten per cent. solution of cocain. In several chronic cases impotence has been found. Very probably the occurrence of these disturbances in the sexual region contribute further to the rapid mental degradation which marks this vice. Dr. Thornley Stoker, of this city, first pointed out to me the frequency of sexual troubles in the cocain habit, and my experience quite confirms that gentleman's previous

observations. Dr. Clouston, in his able article on "Cocainism," remarks upon the singular loss of the time sense. I have observed this as a very marked symptom in my cases also. I think the same condition exists, more or less, in all narcotic intoxicants. In morphinism it is generally very noticeable. In no cases, however, have I seen it so prominent a mental feature as in those of cocainism. These two symptoms, together with the early appearance of hallucinations, seem to form the most distinctive traits of the mental affection arising from the misuse of cocain, as far as it has yet been observed.

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*Asymmetrical Conditions met with in the Faces of the Insane ; with some Remarks on the Dissolution of Expression.* By JOHN TURNER, M.B.Aberd., Senior Assistant Medical Officer, Essex Lunatic Asylum. (*Illustrated.*)

(*Concluded from p. 29.*)

In the case of Ellen D., a female general paralytic in an advanced stage of the disease, whenever she was spoken to her features would be distorted by an exaggerated grin ; the eyes nearly closed by the action of the lower part of the orbicularis palpebrarum, mouth opened and its angles retracted, the upper lip excessively elevated showing the gum, the tongue lolled out between the teeth always on the left side, and enormously deep naso-labial folds produced, curving round the angles of the mouth and blending with each other on the end of the chin.

This grimace eventually became her sole form of expression, and accompanied an irritable and angry state of mind. Occasionally when she was annoyed there would be slight contraction of the corrugators, and her eyes would fill with tears ; but except for these signs it was impossible to tell from her face alone what the state of her mind was.

To take another, and even more striking example, Sarah Camella C., a general paralytic likewise in an advanced stage of the disease. She is extremely irritable and obstinate, if interfered with in any way, as, *e.g.*, by touching her hands or her nose, she flings herself into a furious passion, tries to *bite* and scratch, and her gestures powerfully suggest to the mind an angry monkey. Sometimes she kicks, but her mouth is her favourite weapon of defence. Her face becomes horribly distorted by exaggerated muscular action, sometimes there is

scarcely any participation of the forehead muscles, only the faintest contraction of the corrugators, or contraction of the left inner half of the occipito-frontalis, causing the left eyebrow to be more elevated than the right. Sometimes both corrugators are strongly contracted; but at all times it is the muscles in the lower part of the face which take by far the largest share in the production of the grotesque contortions of the features which accompany her rages. The mouth is either widely opened, the upper lip elevated showing teeth and gums, producing enormously deep naso-labial folds, which reach, as in the last case, right down to meet on the chin, or else it is only partly opened, its angles much retracted and elevated, so that if the upper half of the face be covered the uncovered portion has a laughing appearance. Her passions are exceedingly transient; when at rest she sits with her head bent down and forwards, her forehead frequently lined transversely, the left half of the upper lip is elevated in a snarling manner, and the upper half of the left naso-labial fold is very deep, whilst that on the right side is scarcely visible. She is very fond of biting at the upper part of her dress, and will even stuff large portions of her skirt and petticoat into her mouth. If her attention is attracted she immediately exhibits a transient condition of asymmetry in the forehead, furrows appear over the left eyebrow, which is elevated above the level of the right. In most of her seizures latterly there has been an intensification of the asymmetrical condition usually noted in her face—the mouth being strongly drawn to the left and slightly upwards, the left half of the upper lip more elevated than usual, and twitching, both the occipito-frontalis and the orbicularis palpebrarum spasmodically contracted, the former symmetrically, the latter mostly on the left side. As the fit passes away the twitching ceases in the left half of occipito-frontalis and left orbicularis, but continues in the *right* half occipito-frontalis and the left levator labii proprius (and probably the left zygomaticus). These are very noteworthy facts, suggesting that the active agent, of whatever nature, which was the cause of the seizure, produced its most marked action in those parts of the brain (cortex) where it is probable, as indicated by the previous symptoms, degenerative changes had set in, and consequently where the remaining levels were more liable to discharge, being deprived of the protecting influence of their higher centres.

These four cases will be sufficient to illustrate phases of dissolution of expression occurring in recent curable and also in

advanced incurable cases.\* Brain diseases which are specially characterized by coarse degenerative changes in the pre-frontal lobes are precisely the cases where the wiping out of intellectual expression from the face, especially in its upper part, is most rapid and marked, and hence general paralysis presents to us the most striking examples of this dissolution of expression, for in this disease there is undoubtedly a preponderance of degenerative changes in the motor and pre-frontal regions of the brain.

Photographs taken at periods within a few months of each other of the same face show, when compared, most startling changes in the expression. The pleasing and intellectual rapidly become blank and stolid, or perhaps the character of the predominating ideas stamps itself on the countenance (as in the case of Ellen D.) by the production of a grimace approximating in character to an exaggerated grin, so that before long, although they may be, and probably are, capable of experiencing their former emotions, the face has forgotten how to express them, their grotesque and horrible facial contortions bearing little or no resemblance to any recognized intellectual expressions. Moreover, all that is left to them of the power of expressing their emotions centres round the more fundamental movements which act upon the mouth and lower part of the face, and even these are incapable of responding to the feelings in the normal manner.

Before referring to the forms of asymmetry met with in the face it will be as well to consider the action of some of the muscles concerned.

To take the occipito-frontalis first, it is by far the largest and most powerful of all the muscles in the upper part of the face, and although generally described as one muscle, with at most a right and left half, it must further be subdivided into an inner and outer dursun for each side, each of these divisions being capable of contracting by itself, and each playing an important part in the mechanism of expression, although it is the inner half which is the more concerned in the production of the physical signs of the higher and more idealized forms of expression; indeed, the outer halves, when they contract alone, give to the face an inane appearance, such as is frequently seen in dements. It is the inner halves which, when acting in conjunction with the corrugator supercilii, have been termed the grief muscles. As far as my experience goes amongst the female insane, asymmetry of action is more fre-

\* See note at end.



quently seem in this muscle (alone or in combination with the corrugator supercilii) than in any other of the muscles of expression.

In 306 recent admissions (females) there was noted to be unilateral action of the occipito-frontalis in 75 instances.

	R.	L.	M.
Absence of contraction of <i>all one side</i> with certain expressions	32	10	42
"    "    "    outer half alone    "    "	16	8	24
"    "    "    inner half    "    "	3	6	9

When uncomplicated by contraction of the corrugator supercilii the eyebrows are not markedly oblique, and that on the side of the contraction is raised along its whole length, whilst a series of slightly curved furrows appear across the brow on the side of the contraction. It is often difficult to determine whether the entire half of the muscle or only one portion is contracting, as the furrows over the active side have a tendency to encroach on the paralyzed side. It is comparatively rarely that one sees this form of asymmetry without contraction of the corrugators, and it does not seem to accompany any intense emotional states. Sometimes it is more marked with depressing, at others with exhilarating emotions. Fig. 6 represents the face of a woman showing strong contraction mainly of the outer half of the right occipito-frontalis; neither corrugator is acting. She is in a state of secondary dementia, her insanity being of very many years' duration. She is intensely silly, grins, and makes foolish and irrelevant answers when spoken to. She can only be usefully employed in carrying articles, and for this simple duty requires considerable personal supervision. If left to herself she will sit unoccupied all day with her right eyebrow elevated more than an inch higher than the left. This condition gives a stupid look to her face, it assimilates to no recognized form of expression, and is not intensified with any emotional states; indeed, if her attention is attracted in any way, it generally disappears.

Some of the most striking and interesting forms of asymmetry are those where there is combined contraction of both corrugators supercilii and one occipito-frontalis only. The various degrees of this condition are invariably associated with, more or less, intense emotional states. I shall cite two examples:—

Felicia Maria L., a young woman, æt. 21 (Fig 3). Her insanity on admission two years ago was of two years' duration. She was then maniacal for a week or so, but quieted down, and ever since has been in an apathetic condition,

gradually drifting into dementia, sitting huddled up with her head bent down, speaking in a whisper, and never spontaneously, only moving when urged, fond of chewing bits of paper. When admitted she was in fair condition and health, but has within the last eighteen months developed phthisis. With the increase of degenerative brain changes asymmetrical conditions appeared first in the face, and then in the trunk. These began by slight elevation of the left eyebrow, which was more arched than the right. The elevation became more and more marked, when present, but at no time was it a fixed condition, being only assumed with certain emotional states. The pupils which on admission were equal became unequal, the right being slightly the larger; and now when standing up she droops over on the right side. At the present date she is in an advanced stage of phthisis, the left lung being the more involved. The asymmetry is described in a note recently made as follows:—She keeps elevating her left eyebrow, which is angular, causing well-marked furrows on the left side of the brow. When she frowns and brings into play the internal portions of the occipito-frontalis and the corrugators, although there is very considerable furrowing of the outer half of the left side of the brow, the right outer half is quite smooth.\*

The other case is that of Annie T., æt. 32. Admitted in good health and suffering from acutely melancholic symptoms, which had appeared within the last few weeks prior to admission. She was restless, resistive, and troublesome; her face wore a mingled expression of perplexity, misery, and fear. She exhibited a most extreme condition of asymmetry—called forth when she was startled, or by a reference to some topic which was displeasing to her. The condition is depicted in Fig. 4. (*Vide Journal*, Jan., 1892.) Sometimes the occipito-frontalis on the right half of her forehead contracts, but when it does so it is as part of a symmetrical associated action in the *voluntary* elevation of both brows. This condition appears to be due to the non-action of the right half of the occipito-frontalis, whilst, at the same time, the left half and both corrugators are acting. The paralysis of the occipito-frontalis on the right side allows the unantagonized corrugator of the same side to pull down the

\* Since the above was written she died. There were no very striking, naked-eye, morbid appearances in the brain. There was adhesion of the meninges to the incus on both sides, but very much more on the left, which was decidedly softer than the right, being almost diffuent. Over the prefrontal lobes the meninges were thickened in patches. The ventricles were dilated and full of fluid. Lungs extensively infiltrated with tubercle; the left lung was more disorganized than the right, but cavities were present in both.

skin on this side more forcibly, it being in a, more or less, flaccid state; the result of this is to produce the furrows running upwards from the inner end of the right eyebrow and across the middle line, where they coalesce with the transverse furrows formed by the action of the left occipito-frontalis.

This woman, after a little while, lost most of her active symptoms, became silent and mulish, her face grew fat and singularly expressionless; she wandered aimlessly about the ward, never speaking. When she looked round apprehensively, her attention having been attracted by any sudden or unexpected sound, then if she looked to the left her forehead would still assume the form of asymmetry seen in the photograph, except that when much startled, and the expression was more intense, the *outer half* of the right occipito-frontalis also participated. But when her attention was attracted from the right side there would be absolutely no action of either inner halves of the occipito-frontalis, but the *outer half* on the right would be very strongly contracted, raising the outer half of the right eyebrow very much and producing deep curved furrows over its outer end; both corrugators seemed to contract, but the action of the outer half of the right occipito-frontalis to a certain extent masked that of the right corrugator. This latter form of asymmetry became much the more common—in fact, the former was rarely observed.

In the case now to be mentioned an asymmetrical condition of the forehead furrows was only noticed after the occurrence of a gross lesion (hæmorrhagic) in the left half of the cerebrum. The patient, a young woman, aged 31, suddenly became aphasic, and at the same time there was observed also some paralysis of the right occipito-frontalis, this side of the forehead being smooth whilst there were furrows on the left. It is to be noted that this condition only appeared with certain emotions, and the forehead could be voluntarily raised symmetrically. Both corrugator muscles contracted equally, and were concerned in the expression above noted, but symmetrically. In a day or two there was an increase of the paralytic symptoms—tongue protruded to right, mouth drawn to left when smiling, etc., and the paralysis of the right half of the muscles of expression of the face became more complete. The lines over the left brow showed out markedly against the smooth right side, and the right corrugator supercilii was also paralyzed.

At the autopsy it was found that a small aneurism the size of a pea, situated at the junction between the left middle cerebral, ant. communicating and int. carotid arteries, had rup-

tured. The fissure of Sylvius was filled with a thin layer of clot, and blood had leaked through the hippocampal fissure into the lateral ventricle. The frontal lobe was very soft, and the meninges were adherent over it on the left side only. Some of the convolutions of the frontal and parietal lobe were stained throughout their depth by blood, but the only part of the brain surface which was destroyed was the upper surface of the superior temporal convolution in its anterior two inches, and possibly part of the middle.

As regards the precise action of the corrugator supercilii there is a considerable difference of opinion.

Duchenne (see "Expression of the Emotions") believed it was the corrugator, called by him the *sourcilier*, which raised the inner corner of the eyebrows, and was antagonistic to the upper and inner part of the orbicular muscle, as well as to the *pyramidalis alis nasi*. He admitted that the corrugators drew together the eyebrows, causing vertical furrows, but further believed that towards the outer two-thirds of the eyebrows they acted in conjunction with the upper orbicular in antagonism to the occipito-frontalis. Darwin, however, regarded their action as that of drawing together and *downwards* the eyebrows. And as these muscles are attached to the upper borders of the orbital arch and at their inner angles, and run *upwards* and *outwards* to be inserted into the skin of the forehead about an inch to an inch and a half from their site of origin, it seems quite impossible that they can raise the inner angles of the eyebrows when they contract.

Their action can be easily demonstrated by frowning in front of a glass. Again, the *pyramidales nasi* are the antagonists of the elevators of the nostrils and upper lip, and not of the corrugator supercilii. If one puts the *pyramidales nasi* into action voluntarily one feels at the same time contraction of the elevators of lips and nostril, or *vice versâ*, and the one set cannot be flung into action without the other. However strongly we like to contract the corrugator supercilii, we may by placing the finger lightly on either side of the bridge of the nose assure ourselves that the *pyramidales nasi* are not contracting, but if now we raise the upper lip the *pyramidales nasi* are felt to contract. When the corrugators act in conjunction with the inner portion of the occipito-frontalis, the eyebrows are pulled together by the direct action of the corrugators, whilst the direct pull of the occipito-frontalis—being the stronger—overcomes the tendency of the corrugators to lower the eyebrows, and elevates the inner angles.



I am unable to attach much importance to a slight amount of asymmetry observed in the vertical furrows between the brows in the faces of those who, more or less habitually keep the corrugators slightly contracted, and in this category would fall the majority of intellectual people. I have noticed a large number of faces in regard to this point, and, although I have not been able to reduce the results to numbers, my impression is that it is the rule for the lines on one side to be deeper than on the other, but this is not so amongst the female patients on whom these observations have been made—with them asymmetry is much more frequently due to paralysis of the occipito-frontalis. In 306 persons I only noticed unequal action of the corrugator supercilii in eighteen instances. In eight there was weakness on the right side, and in ten on the left.

One frequently meets with persons who can assume two distinct forms of asymmetry. The following I quote as an example of the most striking instance that I have met:—

Sarah T., æt. 61. A case of recent melancholia. Occasionally she would elevate the outer half of the left eyebrow, producing deep furrows on this side of the forehead, whilst the right side was unmoved. Here there seemed to be some paralysis of the right outer half of the occipito-frontalis; neither of the corrugators was acting. In the other and more frequent condition of asymmetry the eyebrows were oblique, and a well-marked line ran from the inner end of the left eyebrow upwards and across the right side, whilst above in the centre of the forehead were several deep oblique furrows running from the left in an upward direction to the right. She complained of great pain in the *right* thigh and calf, and the veins of this leg were injected. Whenever any reference was made to her painful member or her miserable condition the last form of asymmetry described was assumed.

Some time after my attention had been directed to these asymmetrical linings in the features of the insane I saw in the "British Medical Journal" (Nov. 15th, 1890) a short notice of a paper by Ch. Féré on "*Les Signes Physiques des Hallucinations.*" He endeavours to show that "with the various hallucinations there may be special expressions which may become organically fixed and may thus serve as aids to diagnosis," and that in some cases there are special wrinkles formed about the eyes, the mouth, and nose, in direct relation with the habit of mind induced by chronic hallucinations, and in at least one case he found that when the hallucinations were on only one side the wrinkles were also one-sided.

It seems to me highly likely that these one-sided wrinkles which he refers to, have no other relation to the one-sided hallucinations than exists in the fact that whilst disorder of some of the higher centres in one half of the brain may produce hallucination of the senses, it produces also paralysis of certain movements, accompanying certain emotional states. Thus the second form of asymmetry, which I have just described in the woman (Sarah T.), and which was associated with pain in the *right* leg, and that in the woman (Rachel C.), which I am about to describe, associated with pain in the *left* leg, both seem to me to belong to the same category as Féré's case, of one-sided hallucination producing one-sided wrinkles. In his case there is a special sense impression from one side only, and in my two cases there are painful impressions from one side only, and all these cases are associated with certain facial expressions, which are asymmetrical, because there is some paralysis of the movements which are necessary to produce the appropriate expression associated usually with the mental states called forth in the one case by impressions from special sense-organs, and in the other by impressions from the general sensory nerves of the extremities.

The following is a brief abstract of the case of Rachel C., an epileptic, who had tubercular disease of the left hip joint, from which she suffered great pain, and her face habitually wore an expression of bodily suffering, expressed by slight drawing together of the eyebrows and depression of the angle of the mouth. If her bad leg was touched, or even reference made to it, her forehead assumed at once a very marked asymmetrical condition of its wrinkles, the inner end of the right eyebrow was elevated, whilst the inner end of the left was depressed, and at the same time a number of lines appeared in the middle of the forehead, running very obliquely from the left upwards across the middle line to the right; in fact the condition of asymmetry produced was very similar to the condition already described in the woman Sarah T.

Turning our attention now to asymmetry as displayed in the lower part of the face, I would remark that, in recent cases of acquired insanity, it is met with much less frequently. In 306 recent admissions it was noted only in 21 instances; and seven out of these 21 cases ( $33\cdot3\%$ ) were congenitally weak-minded, and one was a general paralytic. There was weakness on the right side in 17 cases, and on the left in four only. It is curious to note the frequency with which one half of the upper lip is elevated in imbeciles. This one-sided action of the

levator labii superioris gives a snarling aspect to the face when it is pronounced; but we very often see it as the commencement of a smile in this class of cases. In the woman Sarah Camelia C., whose case is referred to on p. 199, this condition of one-sided contraction of the levator labii superioris was present. In her case it was an almost constant condition.

Fig. 1 is the photograph of an imbecile woman. She had well-marked signs of weakness in the left half of the occipito-frontalis, with certain emotional states. In repose her nasolabial folds were of almost equal depth, but when she smiled she drew the mouth markedly to the right, producing a deep dimple in the right cheek. She protrudes her tongue very much to the right. Her pupils are equal.

I have just recently met with a most interesting instance of asymmetry in a weak-minded woman, aged 31, subject to epilepsy. Her left eyebrow is more elevated and oblique than the right. This condition is very frequently seen, varying in intensity, flicking the hand rapidly before her eyes increases it, and one can plainly discern the contraction of the *right* corrugator only, and of left occipito-frontalis, principally the outer half. If she is pricked on either side of the face the asymmetry is increased. She is silly, fatuous, and unemotional, so that any reference to her condition here, etc., or any subject likely to distress her, fails to have any effect on the asymmetry. Pressure on her abdomen, which, she says, is painful, causes symmetrical contraction of both corrugators only. She protrudes her tongue markedly to the *left*. She can easily be made to grin, when she seems to elevate the upper lip fairly symmetrically, but produces a series of furrows distinctly marked down the left side of the nose, due to contraction of the left levator of the nostril. There are none on the right side. Her pupils are equal.

In 306 female patients admitted recently into this asylum I have kept a record of the frequency with which asymmetrical symptoms have been noted, and I find that, including inequality in the size of the pupils and lateral deviation of the tongue when protruded, we get evidence of weakness on one side in no less than 164 cases, or 49·4%, or in nearly half the cases admitted. This is a very high percentage when we take into consideration the fact that the symptoms produced by asymmetry in the actions of the facial muscles are very fugitive in recent cases, and only seen now and again with certain emotional states, which very possibly are not called forth during the examination of the patient. In these 306 cases

there was asymmetry of the facial muscles in 99 instances, or 32.0 per cent.; but in only 21 instances out of these 99 was the asymmetry noted in the lower parts of the face.

In the 78 cases of asymmetry in the upper part of the face, the weaker action was on the right side in 55 cases, and on the left in 27, or there was some paralysis of these movements in the right half of the cerebrum in 27, and in the left half in 55; and with the 21 instances of asymmetry in the lower part of the face the right hemisphere was weakened in four and the left in 17. I have already given the particulars regarding the pupils and tongue. In both these latter cases the inequality was much more equally distributed between the two sides than in the case of the facial muscles. I don't know why there should be this difference; but we must, in the case of the pupils, recollect that we have to take into consideration possible injury or disturbance of two mechanisms, one of which presides over their dilatation and the other their contraction.

That the highest nerve centres represent movements and not muscles is brought forcibly to our minds in observing these asymmetrical appearances. In any of these cases, when the muscles on one side show evidence of weakness, whilst contracting under the influence of certain emotions, or perhaps are incapable of contracting at all, it is only necessary to ask the patient to *voluntarily* frown or elevate the brows, as the case may be, to see that all evidence of one-sided weakness disappears altogether; both sides will now contract with equal force.

So far only evidence of paralysis affecting the muscles of the face has been considered. If it is suggested that these evidences should also appear in the bilaterally associated muscles of the trunk, I would point out that they do, but, as a rule, at a very much later period in the course of the disease; and the reason of this is obvious, for although all parts of the body are represented in the higher centres, yet they are not equally represented. Some, for example, those movements which are intimately associated with emotional and intellectual actions, are more directly and more strongly represented than the more fundamental movements which govern the equilibrium of the body, etc. These former actions represent a much higher level in the scale of evolution; they are by far the most specialized, and hence, in disease affecting parts of the highest level, it is only to be expected that we should, more frequently and earlier, get evidence of paralysis in movements which result from workings of the highest level.



When, however, the seat of the dissolution is more spread out in the first place, or in the course of the malady encroaches deeper and deeper, then we either get paralysis of the bilaterally associated movements of the trunk early, or, as is more often the case, it is a later phase of the disease, and is a symptom of most unfavourable import.

Although there is no doubt in my mind that the slouching attitude and shambling gait of demented and imbeciles, etc., are the effects of paralysis, still very often they lack the necessary one-sidedness to be able to demonstrate unmistakably loss of power, so for this reason I make only a passing mention of them here. But amongst the chronic cases in all asylums no one can fail to have been struck by the frequency with which the body inclines over to one or the other side, quite apart from cases which present post-mortem evidence of gross lesion to cause paralysis. We notice this in individuals who are yet, as regards years, in the prime of life—in men or women who are able to do a hard day's work, and who appear in good health and hearty, and, as far as I have observed, in these cases where there is also asymmetry of the muscles of expression, this asymmetry coincides with the asymmetry of the body; that is, the paralysis is on the same side in both cases.

The girl, Felicia Maria L., already alluded to, exhibited asymmetry in the trunk muscles fairly early in the course of her disease, but in her case there can be no doubt that the dissolution of the nervous system was extreme.

I have not been able to record the frequency with which this asymmetry in the action of the trunk muscles appears, but it is very common in chronic cases. To quote one—E. M., a man, aged about 50, employed daily in the engineers' shop, in good health and capable of doing a fair day's work, full of talk and gesticulation; his insanity is of many years' duration; his gait is shambling and awkward; his body drops very markedly to the right side, and he also exhibits weakness of the right occipito-frontalis muscles, especially marked with certain emotional states; his left naso-labial line is deeper than the right; he can not protrude his tongue; his pupils are equal.

These evidences of paralysis we notice getting more and more pronounced with the progress of the disease. The most marked permanent examples are to be seen in chronic insanity and dementia. Lines that have become customary through the contraction of certain muscles with certain mental states will,

if these states persist, or are frequently recalled, tend to become more marked and more permanently imprinted on the countenance.

I have endeavoured in the preceding pages to explain the mechanism of asymmetry with the idea that by carefully studying these symptoms of paralysis of movement, together with the pathological appearances of the brain in certain cases, we shall perhaps be enabled to identify the localities in the cortex whose integrity is necessary for the proper accomplishment of those physical changes which accompany certain emotional states, and which are eventually expressed in the form of muscular contraction.

#### NOTE.

Another very interesting sign of dissolution of expression often met with in the insane, is the square mouth. Darwin, in "The Expression of the Emotions" (p. 158), refers to this peculiar shape of mouth in infants and young children when crying, and gives photographs of instances which everyone who has observed babies when crying must have noticed. Now this is a form of facial expression which is never seen in the healthy adult, but is of frequent occurrence in idiots of mature age and in insane women.

I have met with a striking instance in the case of an idiot woman, aged 35, recently admitted into this asylum. She is very easily enraged, and then opens her mouth considerably, making an almost perfect oblong of it with the long diameter from side to side, showing both her upper and lower teeth. She weeps copiously at the same time, and screams and gasps for breath—sobs just like an infant. I am acquainted also with the case of an hysterical lady, who has every few months outbursts of excitement, when she has little or no control over her actions. One of the first symptoms which her relatives notice when she is about to have an attack is a peculiar action of her lips and mouth. When talking, she mouths excessively, elevates her upper lip, and protrudes it, and when enraged—a frequent occurrence, produced by the most trifling circumstances—her mouth assumes the square shape—exactly as figured in one of Darwin's babies—and she weeps. This case also exhibits well-marked asymmetry in forehead, pupils, and tongue, pointing to a condition of paralysis of the right side (left hemisphere). There is a series of curved lines on left half of the brow (and this eyebrow is slightly raised) whilst the right half of the brow is free from lines—is quite smooth. This condition is intensified with certain emotional states. The right pupil is the smaller. The tongue is protruded markedly to the right.

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#### ERRATA: PART I., JAN. NO., "J.M.S."

p. 25, line 8 from top, *for 22 read 23.* p. 25, line 10 from top, *for side opposite read same side as.*

*Epileptic Colonies.* By C. THEODORE EWART, M.B., Assistant Medical Officer, Colney Hatch Asylum.

For some time past a considerable amount of attention has been directed, not only on the Continent, but also in the United States, to the provision for epileptics in separate cottages on the same estate, and this article has been written in the hope that it may lead to the early establishment of an "epileptic colony," which shall be a home for the homeless, an industrial institution for those to whom ordinary avenues of trade are shut, a hospital where cure or some alleviation shall be possible, and an educational centre for the training of the young, thus creating a prosperous, industrious, and thriving community to serve as a model for many other such yet to be founded in this country. The word "home," or "colony," is suggested as being free from the repulsiveness which might attach to the name "asylum," which would be somewhat of a misnomer.

In discussing this matter the subject will be divided into (a) epileptic insane, acute and chronic; (b) epileptic *not* insane; and (c) epileptic children.

(a) *Epileptic Insane, Acute and Chronic.*—In the first place the founding of epileptic homes would be recommended as the best plan whereby the overcrowding of asylums may, to a great extent, be relieved. Patients are accumulating fast, and the legitimate work of an asylum is hampered by a large number of chronic cases whose care involves a great amount of work, non-professional in character. With plainer homes, familiar occupations, and greater freedom they would not only be happier, but be a less expense to the ratepayers. Could they not be equally well looked after in homes specially built, and would there not be greater probabilities of a higher recovery rate? Instead of erecting mammoth asylums, a blot on the intelligence of the age, to which year after year wings are added, creating a "wilderness of lunatics," in which no man can possibly have a just conception of the pathological condition of his patients, why not place them in simple and inexpensive cottages, where they could under medical and State supervision be well and kindly looked after? Boarding out is becoming less attainable now, as there are fewer persons willing to receive patients, and should they even come forward and be found trustworthy, and with suitable rooms, probably not a third

of the patients could be safely bestowed in this manner, neither could they be sent to the insane wards of the work-house, for this would not solve the difficulty, as it would merely mean that these, to meet the growing numbers, would have to be enlarged.

All experience goes to prove that every country should have two types of asylums for its insane; one should be distinctly a hospital, and the other distinctly a home, situated in a country district, and surrounded by ample lands. The following remarks occur in the Presidential Address delivered by Dr. Yellowlees, in July, 1890:—"The accumulation of incurable cases is perhaps the greatest defect of all, for it causes or aggravates all the others. It increases administrative worries, adds to the routine medical work, covers up from observation the new and curable cases, and tends to make the institution a place of residence instead of a place of recovery; a shelter for wrecks instead of a place where vessels are refitted for service. . . . The history and circumstances of many of our increasing counties or districts, as regards provision for their pauper insane, are unfortunately similar. An asylum is built which seems more than sufficient for all the needs of the district, and for a time it can receive patients from other districts also. Gradually, as each year adds to its quota, the incurable cases accumulate, then the out-district patients are expelled, then a wing is added here, and another there . . . until it grows to twice or thrice its original size . . . and is less efficient as a place of cure, since individual treatment has become increasingly difficult, and the new cases are easily overlooked amid a multitude of incurables." The influence of a great mass of insane persons one upon the other is baneful, and can only be overcome by their association with those of sane mind, and the more healthful influences surrounding them in detached cottages, scattered over a large acreage, whereby also a classification upon a medical basis, almost unlimited in its sub-divisions, becomes possible, thus giving to medical superintendents the long-desired opportunity—practicable only when few patients are under one and the same roof—of *individualizing* the treatment.

(b) *Epileptic, not Insane.*—For the deaf, the blind, the dumb, the crippled, the idiots, the insane, for almost every other unfortunate class something has been done; alone, however, has the sufferer from epilepsy been left to work out his salvation for himself, often an outcast from his



family, thrust out from the schools, shunned by his fellows, refused industrial employment, left to idleness and ignorance, friendless, and drifting at last most likely to the workhouse or insane asylum, they are "not so much born into this world as damned into it." What is to be done with them? The civilized world would cry out if it were proposed to place them in a lethal chamber, but after all would it not be more merciful to kill them thus, instead of allowing them to live from day to day a life of misery and despair?

"A wretched soul, bruised with adversity,  
We bid be quiet when we hear it cry;  
But were we burden'd with like weight of pain,  
As much, or more, we should ourselves complain."

*Comedy of Errors.*

It would be a noble action on the part of the London County Council—the most wealthy of all such bodies—to take the first steps in the establishment of these homes.

When we remember that a good many of these unfortunates are as brightly intelligent, as capable of being educated, as well adapted for industrial pursuits as the ordinary human being, the injustice done to the epileptic, whom we lock up with the insane, becomes apparent. What they require is industrial training, combined with medical supervision.

About 24 years ago Pastor von Bodelschwingh, a Lutheran clergyman, believed it was possible to create a refuge where these sufferers might be cured if curable, where they might have a comfortable home if recovery was impossible, where they could develop their mental faculties in the highest degree by acquiring trades or taking part in whatever occupations they might select, finally developing into a community of educated, industrious, and contented citizens. Actuated by these high motives he purchased a farm near Bielefeld (Westphalia), and, with 4 epileptics as a beginning, established a colony which gradually expanded, for in 1878 it contained 250 epileptics; in 1882, 556, and at the present time considerably over 1,100. During this period 2,407 have been received, and of these 156, or  $6\frac{1}{2}$  per cent., were discharged recovered, and 450 improved. The colony, with its gardens, farms, and cottages, is scattered over 320 acres of beautiful woodland and meadow. The chief features in the management are the system of decentralization, the division of the patients as much as is possible into small families residing in cottages, the separation of the sexes and of the feeble-minded from those whose mental faculties

are more or less normal. To secure a sufficient number of male and female nurses training schools have been established, and the authorities not only have a supply for their own use, but are enabled to send them to distant places on their errands of mercy.

Making and repairing wearing apparel, knitting, fancy work, the laundry, etc., furnish employment for the females, who are also to be seen attending to the gardens. The men have a still greater variety of occupations—the printing establishment, book-binding, illuminating picture cards, leather work, floriculture, agriculture, fruit raising, a bakery, joinery, foundry, tailor and boot shops, dairy, brickyard; in all there are over 30 different callings. All these employ many hands. An orchestra made up from their own ranks, a museum for the collection of stamps, coins, autographs, and specimens from the animal, vegetable, and mineral kingdoms; in fact there is everything to distract the minds of the patients from their unfortunate mental condition. Every workshop has its mattress ready for use, and there are plenty of willing hands always about to help those who may happen to have an epileptic seizure. The colony is a hospital for the cure of epileptics, a school for the education of epileptic children, an industrial institute for the adults, and an asylum for those who become demented. In the “Quiver” of September the Countess of Meath, in giving an interesting account of a visit she paid to this colony, says: “Though the men do occasionally hurt themselves in falling, they do not seem to suffer more serious injuries in these workshops, where dangerous tools are about, than if they were employed in an occupation not necessitating their use. And what a blessing must employment be to these poor fellows, giving them the means of forgetting their affliction, and making them realize that they too are able to take their part in the work going on in the world.” Since the successful establishment of this colony several similar institutions for epileptics have sprung into existence on the Continent. Among these are Rotenburg in Hanover, Maria-hilf, near Munster, and Olpe in Westphalia, Alexandra-Kloster at Aix-la-Chapelle, and Rath, near Düsseldorf for the Rhinish Province, Neinstedt-Thale for Saxony, Tabor, near Stettin, for Pomerania and Posen, Karlshof, near Rastenburg, for East and West Prussia, Potsdam for Brandenburg, Haarlem in Holland, Zürich in Switzerland.

The rapidity with which such a number of institutions

have been founded proves without a doubt that the demand for them is great, but so far as can be gathered there is no place of this nature in Great Britain, although probably there is not a workhouse or asylum but has a few or more epileptics in its wards.

(c) *Epileptic Children*.—Counties and boroughs are compelled by law to admit cases of idiocy and imbecility into workhouses and asylums, in the same way as lunatics. It is hardly, however, necessary to say that it is highly undesirable to mix this class with the insane in county asylums, or retain them in workhouse infirmaries. The Commissioners in Lunacy remark in their report for 1865:—"It has long been our opinion, as the result of extended experience and observation, that the association of idiot children with lunatics is very objectionable and injurious to them, and upon our visits to county asylums we have frequently suggested arrangements for their separate treatment and instruction. It is always to us a painful thing to see idiot children, whose mental faculties, physical powers, and habits are capable of much development and improvement, wandering about the wards of a lunatic asylum. The benefits to be derived, even in idiot cases apparently hopeless, from a distinctive system, and from persevering endeavours to develop the dormant powers, physical and intellectual, are now so carefully established that any argument upon the subject would be superfluous."

In the London district steps have been taken to remedy this sad state of affairs, and the result has been the erection of the fine asylum at Darenth, but chaos still exists in most of the counties. It seems a fact that idiots are considerably prone to the development of epilepsy, inasmuch as epilepsy so frequently appears in conjunction with idiocy, and as the latter is a primary affection one must suppose some bond to exist between these two maladies. In the case of the unteachable and adult epileptic idiots it would be wiser to have separate custodial institutions, but for the ordinary epileptic child there should be a school, where from the earliest age he would receive a technical and elementary education.

At Gheel, in Belgium, there is a colony of the insane, but it is not exclusively confined to epileptics. The district is about seven miles square, and 30 in circumference, containing a population of 11,000 sane and 1,760 insane, 200 of the latter being epileptics. There are nine villages, Gheel itself being the centre, with a population of 5,000 sane and 700

insane. A committee, consisting of five members, exercise a general supervision, and there are five physicians, two superintendents, each with an assistant medical officer, and a resident physician in the infirmary; also six attendants whose duty it is to visit each patient daily. The assistant medical officers visit each lunatic once a month, and the superintendents visit every case half-yearly. The cottagers either own or rent their houses, no family being allowed to receive more than two patients, and these are placed according to their social position and occupation. Every inhabitant of the commune exercises a general watchfulness, and notwithstanding the great liberty allowed, very few escapes take place, and there are hardly any accidents.

The influence of the insane population on the sane is said to be harmless. This probably, however, cannot be estimated correctly by statistics, just as the evils resulting from overcrowding in asylums cannot find expression in figures, but there can be no doubt that great benefit must be derived by the insane from the sanity which exists around them. Ghêel is not perfect, and many improvements might be introduced. More attendants are required, more careful supervision needed, and the dual authority should be done away with. The Belgians have been so satisfied with the success of the place that they have planted another colony near Liège, which, although cordially disliked by the inhabitants at first, is now welcomed.

Great progress is also being made in America, and the writer is greatly indebted to Dr. Frederic Peterson, of the New York Hospital for the Nervous and Epileptic, for having so kindly furnished him with information as to the steps being taken there. In the report presented by the architect to the Commission appointed by the State of Ohio to prepare plans for the accommodation of the epileptic and epileptic insane many valuable suggestions are to be found. The site finally selected was within the corporate limits of the City of Gallipolis. The problem was to provide for all grades and ages of persons afflicted with epilepsy, and to erect buildings suitable to the wants of the different classes of its inmates. That the patients might enjoy as much fresh air and sunshine as possible the buildings have been so arranged that all rooms to be occupied will receive sunlight at some time on each day, and commodious verandahs and pavilions, where they may remain in the open air, but under cover, have been provided. General and special dining-rooms have been erected,



the whole arrangements being such as to give to the institution the home-like effect which is so desirable, and it is to be fire-proof throughout. As a great number of the patients would be in comparatively good health, it is suggested that only such buildings be erected at first as would be necessary to begin the work of the colony. Any additional buildings that may be required later could be erected by the patients at very little cost, and there would be no need to expend a large sum of money.

The complete asylum would contain 1,006 patients. To start on a good working basis it is recommended as necessary to erect

Two cottages, 46 patients each	...	...	92
Four " 64 " "	...	...	256
" " 50 " "	...	...	200
" " 50 " "	...	...	200
Two " 47 each (children)	...	...	94
" " 29 " (excited cases)	...	...	58
" " 32 " (infirm wards)	...	...	64
" " 21 " (hospital ward)	...	...	42
Total			1,006

The kitchen, bakery, and a temporary laundry, with proper provisions to answer for heating, ventilating, sewerage, etc.; all of these would accommodate more than 200 patients. The work of the patients, who would represent all callings and trades, could be utilized and methods of construction adopted, which, in a few years, would complete all the buildings. The administration would, for a time, be accommodated in one of the employés' buildings. A system of warming would be adopted, which, at first, would not require an extensive heating plant. The cottages first erected are each to be provided with a dining-room, so that it would not be necessary to build congregate dining-rooms. Lighting could be temporarily accomplished by using gas from the neighbouring city. Thus, the establishment of the institution could be completed at less than half the cost of any other building capable of containing an equal number of patients.

To summarize the main principles to be observed in the organization of such a colony :—

(1.) Land: To consist of at least 500 acres of farm and woodland, well adapted to agricultural and horticultural

pursuits. This land should be within easy access of a large city as giving a ready market for produce.

(2.) Small buildings: These to be arranged into separate divisions for the male and female patients; each of these divisions to make provision in separate cottages for the demented, the convalescents, the school children, the workers, and private patients of the higher classes.

(3.) Every patient, without exception, should be under medical care, and there should be a medical man for every 200 patients.

(4.) An educational building for epileptic children.

(5.) Workshops for adult epileptics, farm buildings, dairy, etc.

(6.) A special laboratory for the study of epilepsy by a skilled pathologist.

Two arguments have been advanced against having two types of asylums. The first is that "there would be a sameness of occupation, a want of hope, and an absence of object," which would drive a sane man into insanity in a very short time. This argument would not be tenable if the scheme advocated was adopted, for in the epileptic colony there would neither be lack of occupation nor absence of hope.

The second argument is chiefly a financial one, viz., that by drafting off the chronic cases it would be necessary to introduce a larger number of sane workmen and workwomen. This is true, but the first duty of a committee is the welfare of the patients, not the saving of money, and the idea that the chronic are incurable must be protested against. By separating the acute from the chronic, each class has a better chance of recovering more rapidly, and the time of lodgment being shorter, there would be a much lessened cost, which would go far towards paying for the extra work-people. Our attention should be steadily directed to the patients whose mind appears almost gone, for among this class there is a wide sphere of labour, from which results will occasionally flow that will amply reward anyone who engages in the work.

The outdoor work which has been recommended would neither be a novelty nor a hardship, and through it each patient would not only help to pay for his care and treatment, but would work out his own cure, for manual labour has long been recognized as a therapeutic agent of the highest efficiency. The want of sleep, from which so many patients suffer and which drugs fail to influence, soon yields

to healthy fatigue ; gloomy thoughts and brooding cares are dismissed by its genial working. As to the risks incidental to the above scheme, there is no great chance of any serious casualty occurring if there is a sufficient staff of trustworthy attendants specially trained for their work and under the strictest medical supervision.

It has also been said that, as those afflicted with epilepsy deteriorate so rapidly mentally, it is hardly worth while taking steps to ameliorate their condition. The frequent recurrence of epileptic fits for many years certainly tends in some degree to impair the mental faculties, and most epileptics do become demented if they live long enough, but this may be said of any form of insanity. That epilepsy is compatible with great mental power we see proved in the lives of Julius Cæsar and Mahomet, who were both said to suffer from this affliction. Epileptic fits may continue for years with scarcely any appreciable mental change, and in asylums a large number may remain for very many years with the intellect but little impaired, and then only at those periods when they have epileptic attacks ; in the interval they are rational, coherent, intelligent, bright, and cheerful. Dr. Bevan Lewis, medical superintendent of the West Riding Asylum, Wakefield, says :—"No emotional or intellectual disturbance can be traced by the strictest scrutiny, and their conduct, consistent in every respect, enables them to take up any employment for which they are fitted and carry on responsible functions in various departments. Why are they then inmates of an asylum ? Because their epileptic seizures are preceded or followed by such transient mental aberration, or by such reductions as render them at these times a risk to themselves or others. . . . It is a well recognized fact, which the student must bear carefully in mind, that certain forms of epilepsy, with frequent fits, may last for many years, and yet the mental faculties remain, in the interval between the successive seizures, intact." It must be confessed that some do deteriorate rapidly mentally, causing enfeebled intellectual operations, with an increase of the lower animal instincts, while there are others who are violent, passionate, and uncontrollable. This impulsive temperament produces a large crop of criminals ; the individual, at the moment of the evil impulse, being incapable of bringing into action the contrary impulse with sufficient force to neutralize the anterior one, the antagonistic states of consciousness are developed *successively* instead of simultaneously.

During recent years the close connection between epilepsy and crime has frequently been shown, and, in dealing with this criminality, we have to remember that, so long as the conditions of life render the prison a desirable and welcome shelter, so long shall we have criminals. Many an epileptic is on the borders of vagabondage, and the vagabond is on the borders of crime.

The school of the colony should be founded on the type of our public schools, Harrow, for instance. A main building containing the class-rooms, around this different houses tenanted by the masters and their pupils, with wide stretches of ground for tennis, cricket, football, etc., the boys having their meals with the master and the female members of his family, thus finding, to some extent, that home-life, the value of which is so inestimable that Renan says:—"The professor cannot teach that purity and refinement of conscience which is the basis of all solid morality, that bloom of sentiment which some day will be the great charm of the man, that mental subtlety with its almost imperceptible shades—where, then, can the child and young man learn all these? In books, in lessons, if due attention be paid to them, in texts learned by heart? Not at all. These things are learned in the atmosphere in which we live, from our social environment; they are learned in domestic life and nowhere else." By this method, I believe we should get much better results than by the boarding system of massing together in one building a number of children, a plan unhealthy alike for mind and body. M. Sainte-Claire Deville, in calling the attention of the Académie des Sciences Morales et Politiques, shows that whenever you bring into domestic restraint animals of the same sex, especially the male, there is a great perversion of the reproductive instincts; when, however, they are kept in separate flocks, the normal characteristics of the animal dominate. What happens in a flock happens also in a collection of male epileptic children. I cannot believe in the theory that education is powerless to modify the character of the individual; rather do I believe that, by showing a child how to live a good life, you will persuade him that he not only *can*, but that he *ought*. Education, although it would not prevent some epileptic children from becoming criminals, would, if it was an education as much physical and moral as intellectual, give them a better chance of taking a good part in social life. "The proportion of criminals who are acquainted with any



trade still remains very small; the proportion of criminals engaged in their trade at the time of their crime is smaller still. We seem to be approaching a point at which it will become obvious that every citizen must be educated to perform some useful social function. In the interests of society, he must be able to earn his living by that function" (Havelock Ellis). If man sometimes has the instincts of a tiger, he has also those of the dog and the sheep, and all this makes a mixture which is not fundamentally bad, and if he is kept thoroughly well-nourished, not only in his framework and muscles, but also in his nervous system, the result will be a well-balanced organism. Dr. Dolan eloquently says:—"If we grasp the central truth that the child is father to the man, we are masters of the future. The impressions and surroundings of childhood mould character. The slums, the alleys, the evil example of parents, the surroundings of dirt, sloth, idleness, and dissipation, the absence of restraint, the want of religious and educational influences, are responsible for crime and criminals. Collectively and individually, the responsibility rests upon man; he cannot shelve it by throwing the blame on heredity or upon the Creator. It is for us to cast our ægis over childhood and boyhood, it is for us to fully accept the debt and responsibility we owe to epileptic children," and by doing this we shall, by raising the souls of the citizens, rather than the roofs of asylums, render the greatest service to the State.

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*A Visit to some Foreign Asylums.\** By FREDERICK NEEDHAM, M.D.

I feel that an apology is due from me for the introduction of this paper, which is really unworthy of the name, and only purports to be a collection of rough notes put together at the times and in the places mentioned. As such I venture to offer them to you.

Being in Venice in the year 1884, I took a gondola one sunny morning to the Island of San Servilio, in the Adriatic, and visited the asylum for insane men which occupies that island.

I found the doctor in charge in the person of a courteous

\* Paper read at the Psychology Section of the British Medical Association, Bournemouth, 1st August, 1891.

monk, who gave me a pleasant welcome, and readily agreed to show me whatever I wished to see in the asylum.

We started from his office, which contained various implements of his craft, such as instruments for taking measurements of heads, photographic apparatuses, and photographs in great profusion. He showed me his well-kept case books, which seemed to contain an accurate record of each case, and which did contain a photograph of each patient on admission and discharge. I also saw his excellent dispensary, and a well-fitted pathological laboratory.

The building, which is solidly built and whitewashed throughout, is situated in a good space of walled ground, which contains airing courts and a kitchen garden, wherein are grown all the vegetables for the use of the establishment, the labour being chiefly that of the patients. It contains day-rooms, dormitories, and single rooms, an infirmary block, and a bakehouse, a laundry, with the usual drying closet, and other machinery of a simple kind, and workshops for mattress-making, blacksmiths, and carpenters.

The day-rooms, which were spacious and airy, were most of them devoid of more than the simplest furniture and of all attempt at decoration, and were crowded with patients, many of whom were restless, turbulent, and exceedingly noisy. At least 60 of them were restrained by means of leather hand-cuffs, attached by chains to leather waist-belts. In the convalescent wards were a few maps and small pictures, but there were no books or periodicals, or other means of amusement.

The dormitories were of ample size, and afforded 1,400 cubic feet of space to each bed. The bedsteads were of iron, and the comfortable beds of straw and wool. The bedding was clean and sufficient. There were about 600 patients, and their clothing was ragged and untidy. Sinks were provided for washing purposes. There were no basins or other toilet requisites. All the water was supplied from an artesian well, and that for drinking purposes was filtered. The water closets were latrines on the usual Italian principle, and they were neither more nor less offensive than those which are provided for the public outside. There was no provision for bathing, and soap and water generally appeared to be in little use throughout the establishment. The infirmary block was particularly odorous of urine and other strong-smelling human products.

In one room I saw three patients in a state of acute mania,

strapped in beds close together, swearing at each other with great vehemence. There were numerous broken limbs and black eyes among the patients, and while there was a free circulation of air, and no great want of cleanliness or neatness in the rooms, there were, so far as I could judge, no organized efforts made at classification or the cure of mental disease by modern scientific methods.

In the year 1887, being in Spain, I took the opportunity of visiting the asylum for insane persons of both sexes, situated at Granada, in a large building erected by Ferdinand and Isabella, wherein are also located a foundling hospital and a poor relief office, from whence doles of food and money were being handed, as I passed, to a most ragged and abject crowd of mendicants.

I was pleasantly received and taken round by the resident clerical director, but there was really not much to see. There was no resident doctor, and the director told me that very little effort was made to cure the patients. "The good God was their best friend," he said.

The only obvious means of treatment which presented itself was in the form of a newly-erected bath-house, which consisted of a chamber lined with zinc, and containing a low wooden platform, on to which could be made to play, by means of an ordinary fire hose, with great force a *douche* and shower of water. To the newness and apparent want of use of this apparatus I attributed, to some extent, the fact that the eighty patients whom I saw seemed generally happy and contented, and upon good terms with their attendants. Most of them were enjoying the sunshine out of doors in the small walled airing courts, each of which had in it a small streamlet of running water. They seemed happy enough, and their only solicitation was for money wherewith to purchase cigarettes, the very meat and drink of a Spaniard.

None of them were restrained, and none seemed to be in cellular confinement. They were generally quiet and free from excitement.

The day rooms and dormitories were simple, plain, and undecorated. Two of the dormitories contained about 30 beds each, and there were a number of very small single rooms, not more than six feet square, which contained a small bedstead and mattress, and in some cases a chair. Everything was fairly clean. I saw no appliances for ablution, but the patients were as well clothed and as clean

as most sane persons of their class in Spain, which is not saying much, for they are not a cleanly people.

I noticed that the male attendants had keys, which admitted them equally to their own wards and to those of the female patients.

The means of amusement were conspicuous by their entire absence. There was no single picture, or book, or paper, or game of any kind to be seen anywhere, and the only means of occupation were comprised in a garden about 30 feet square, and an extremely diminutive whitesmith's shop. I must say, however, that no one seemed to be regretting the absence of employment. The Spaniard is an admirable idler, and to lie on the ground in the sun, with simple food at intervals, an occasional cigarette, and nothing to do, was probably no unhappy life from their point of view—climatic and constitutional.

Before leaving Spain I took the opportunity of paying a passing visit to the asylum at Gibraltar, as to which there is less to be said than of that at Granada. The building is handsome, quite modern, and stands on a height overlooking the bay. It is managed by a lay superintendent under the control of the magistrates and Governor General. All the rooms were bright, cheerful, and well furnished. There were some pictures and books, and the furniture was substantial and comfortable.

The whole place was scrupulously clean. All the patients were out of doors, but there were only twenty of them altogether, most of them imbecile or demented.

There was no case in which restraint or seclusion could properly have been used; as a matter of fact, no one was either restrained or secluded, but I found that the camisole was used upon occasions. The whole place was well kept, and, I thought, creditable to those in authority.

The last foreign asylum which I visited was that of San Spirito at Rome. I was there in April of the present year, and spent a long Sunday afternoon in the company of a very pleasant and intelligent Benedictine monk, who acted as my conductor round the establishment. To reach it you cross the Tiber and enter that part of the city which is called the Lungara. Here stands an enormous hospital, with accommodation for nearly 2,000 beds, built by Pope Pius IX., and occupying a part of the space is the asylum, with its 600 inmates of all ranks, classes, and conditions.

The situation of its grounds, which are many acres in



extent, and of some of its buildings, is most lovely, overlooking Rome and the Campagna, and as high as the roof of the nave of St. Peter's.

The patients are distributed over a main building, which is reached by a series of ascending corridors, and six or seven detached houses in different parts of the grounds.

Before making this ascent I was received in the waiting-room, just off the street, where numbers of the poorer patients were being visited by their friends.

Fruit and nut dealers seemed also to be allowed free access to vend their wares, and to be doing quite a brisk business. All the proceedings here seemed to be free and easy, and gave one a good impression as to the kindly *régime* of the establishment generally.

The buildings are well constructed and arranged to suit various classes of patients, who are accommodated according to their mental conditions and rates of payment.

Some who pay largely are provided with suites of handsome rooms in detached villas, well furnished, and with attempts at decoration. Then there is a building for quiet paupers, another for epileptics, a third for idiot children, and one for noisy, excitable, and destructive patients. Very few patients were in the house, for it was a bright, hot, sunny day. Most of them were either in the general grounds or in pleasant, but comparatively small, airing courts. Some of them were being visited by their friends, who were sitting about in the grounds with them. No one was at work, of course, but I saw carpenters', basket and mat-makers' and upholsterers' shops, and a school for the idiot children. The day-rooms and dormitories were large and airy, and the whole place exceedingly clean and free from smell. There were very few single rooms. There was a colour room, into the skylight of which slides of red and blue glass were able to be inserted, which I understood had been used with benefit. There seemed to be scarcely any bath-rooms. There were inspection openings in all the bedroom doors.

The beds and bedding were ample and comfortable. The attendants sleep in rooms open to the dormitories. They did not seem to be numerous in proportion to the number of patients.

I saw no books or papers about anywhere, and very few pictures. There was a general air of quiet contentment and kind usage. I saw no black eyes or other marks of

injury. The airing grounds for the noisy and excited were crowded, and the brother assured me that there was much noise and excitement indoors in wet weather, when the patients could not get out.

Restraint and seclusion are evidently in free use. In one dormitory I saw thirteen excited patients tied in bed with linen bandages. They were not specially noisy, nor did there appear to be any sufficient reason for their restraint and enforced segregation. In an adjoining room one patient was tied on to a night commode, which was surmounted by a large waterproof cushion, with a hole in the centre; and there were, in the same room, four more of the same appliances, which, however, were then vacant.

It seemed to be, in the opinion of my guide, a quite unobjectionable and certainly efficacious way of getting rid of some of the inconveniences of faulty habits. There were a few men in the airing grounds who were restrained by means of waist and wrist straps.

I saw some of the suppers laid. The food seemed excellent, and to each patient was allotted a small tin of good red wine.

The whole place was managed by two resident physicians and a colony of sisters and brethren of a religious order, and I was much struck during my visit by the numerous signs everywhere of the kindness and general intelligence with which the institution was conducted. It presented a remarkable and a very pleasing contrast to the rough-and-ready system which I saw in operation in Venice seven years before, and which I should be glad to learn had participated in the tide of improvement which has of late years been sweeping over the asylums of all civilized countries.

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*Observations upon "Katatonia."* By EDWIN GOODALL, M.D.  
Lond., B.S., M.R.C.P., Pathologist and Assistant  
Medical Officer, West Riding Asylum, Wakefield.

Eighteen years have passed since Kahlbaum published his memoir\* upon this subject, yet it may be said that the claims of katatonia to be regarded as a distinct disorder are still unsettled. This prolonged period has not, however, been marked by phases of belief, such as are often exhibited subsequent to the publication of accounts of new disorders,

\* "Klinische Abhandlungen ueber Psychische Krankheiten," von Dr. Karl Kahlbaum. 1 Heft, Die Katatonie. Berlin, 1874.

or follow proposals to rename and reclassify disorders already known; at first enthusiastically believed in and subscribed to, these fall, at a later stage, upon evil days of neglect, and even oblivion. But with katatonia it has been otherwise. At no time does there appear to have been any widespread enthusiasm in alienist circles about this affection; at most it seems to have appealed to individuals, who have expressed merely isolated views, the statement of which has led to nothing more than limited controversy. Probably it may be said with justice that katatonia, for the majority of medical men in asylums in this country (at any rate), was but a name up to quite recent times; having a doubtful significance for some, for many quite without meaning. Granting that this remark is true, the truth brings with it no surprise, for the disorder referred to meets with scant notice in English text-books. This may be said without casting any reflection upon these works, which, of course, are not bound to treat of disorders not universally recognized.

Of late years, however, a full account of katatonia has appeared in English guise,\* and we may hope that it will stimulate inquiry in this country into the claims put forward on behalf of an affection hitherto but little studied. For enlightenment upon the subject, one looks especially to those connected with institutions for the insane of the upper and upper-middle classes, amongst whom melancholia attonita and anergic stupor with cataleptic conditions seem chiefly to occur. The same remark applies to these conditions when cyclic or accompanied by spasmodic states. Kahlbaum records that, amongst his cases, were many teachers and theologians.

In considering the ætiology of the disorder, he remarks that katatonia is probably to be found in all countries, just as *M. attonita* is. One is inclined to doubt whether its frequency of occurrence in this country is equal to that in continental countries, such as France, Austria-Hungary, and Germany, for hysteria—probably far less common here than there—seems to form a prominent feature of the disorder as described by Kahlbaum. This, at any rate, is the impression left upon the writer after perusal of the accounts; and evidently MM. Séglas and Chaslin have come to much the

\* "*Katatonia*," by MM. T. Séglas and Ph. Chaslin; "*Brain*," Vol. xii. (apparently a translation of an article by these authors, originally published in "*Archiv. de Neurolog.*," 1888, Num. 44-46). The same volume contains a paper by Dr. Julius Mickle, with case. In the article first-named the views of Kahlbaum are stated at some length. For a later German memoir than Kahlbaum's, see C. Neisser, "*Ueber die Katatonie*," 1887.

same opinion. Hammond (quoted by these writers) says that one of the first cases of katatonia is recorded in the reports of Bethlem Hospital; one would like very much to know whether or not this is the name actually employed by the reporter? We should rather doubt it. The statement probably originated in the circumstance that Dr. Hack Tuke reported several cases of mental stupor occurring in this hospital to the International Congress of 1881, and stated that Kahlbaum approached such cases from the motor side, and spoke of them as "katatonia." However this may be, it is certain that not more than two and a half years ago the student at Bethlem heard nothing of the affection under consideration, although he was perfectly familiar with numerous cases closely resembling and apparently identical with those claimed in certain quarters as instances of katatonia. The simple fact is that the cases were described under other names (as mental stupor), and it did not seem necessary to coin a generic term to cover them all. A Greek name is often a mere cloak for the love of novelty.

In one respect, however, the cases first-mentioned differed notably from those of Kahlbaum—the symptom known by the term "verbigeration"\* was not observed. Now this, according to the authority mentioned, is peculiar to katatonia, and, therefore, its presence or absence is important from a diagnostic point of view. Personally (with an experience of about three years), I can profess no acquaintance with verbigeration as described by Kahlbaum, and later by his pupil Neisser, and should be glad to learn what, if any, value is attached to this symptom by those who have had larger experience. At present I find it difficult to believe that it is met with at all commonly in this country; yet cases which—it seems probable—would be unhesitatingly included under katatonia by its advocates are common enough here, especially in certain classes of insane society. Granting that some of these are instances in which the disorder is not marked by the presence of this particular symptom of verbigeration, many still remain over, of which it is necessary to give an account. If these are not examples of katatonia, that term comes to have a restricted use only, with which it is impossible to suppose, after reading his description, that its proposer would be satisfied. If, on the other hand, they are, then verbigeration is not the characteristic symptom it is said to be, or, at most, is a

\* Probably the best account of verbigeration is that by Clemens Neisser, "Allgem. Zeitschr. f. Psychiatrie." 46 Band, 2 and 3 Heft, 1889.



peculiarity of continental katatonia. Indeed, it might be even more precisely localized, for we find French writers denying that verbigeration is characteristic of any affection whatsoever.

It is not my intention to go into the symptomatology of katatonia, seeing that there exists already a fund of information upon the subject, which, furthermore, is far too comprehensive to be dealt with in a short paper. For katatonia includes the chief forms assumed by diseases of the mind, and, in addition, a motley group of alleged "spasmodic" conditions. The systematic disturbances underlying these clinical manifestations are comprehensive, if we may judge from the statements of writers. One may be allowed to remark upon the singularly vague nature of the former. Dr. Mickle,\* in the early part of his article on katatonia, speaks of a "large, loosely-formed" group of cases (amongst which occur the katatonic), in which there exists "not only a vaso-motor neurosis, with its 'fluxions,' vaso-pareses, and cardiac disturbance, but a motor-tension neurosis, or muscular status attonitus. . . ." The cardiac disturbance and the muscular status attonitus would, doubtless, be open to observation, but might not the vaso-motor neurosis, the "fluxions" and the vaso-pareses easily escape detection? It seems probable that instances might occur in which one would experience hesitation in diagnosing these conditions. But it is, doubtless, possible to have a clear enough conception of katatonia, although one's belief in the existence of the physical states associated with it is unsettled.

After bringing to notice the complex of symptoms which he proposes to designate by a special name, Kahlbaum devotes a chapter to the ætiology of katatonia, and therein deals with its "epidemic and endemic occurrence." The "convulsionnaires" of St. Médard, whom we have been taught to regard as examples of hysteria, catalepsy, epilepsy, and chorea in turn, are now claimed—many of them, at least—as cases of katatonia; it is admitted that amongst them were instances of other disorders such as those specified. The preaching epidemic of Sweden is especially referred to as illustrating katatonia on a large scale, preaching being, in this instance (according to Kahlbaum), synonymous with verbigeration. But mere expressions of opinion of this kind in regard to past events are not calculated to strengthen the case for katatonia.

\* *Op. cit.*

A long chapter is devoted by Kahlbaum to the consideration of the pathological anatomy of the disorder named by him. The author made, he tells us, a large number of post-mortem examinations, but the pathological appearances of seven cases only are recorded. I can find no reference to the other cases, although it would appear important that we should know in how many of them and in what degree these appearances (described as characteristic) occurred. With such information, we should be enabled to form a more correct estimate of the significance of the diseased conditions described in the seven cases. Even if these are to be considered as average ones—and there is no statement to this effect—we are still without adequate means for arriving at definite conclusions.

I may now specify the morbid conditions of the brain and its membranes, given by Kahlbaum as characteristic of katatonia, making a general comparison—after the manner of the text—between them and the morbid states of the same parts in general paralysis of the insane. In katatonia the appearances indicative of congestion (*Stauungserscheinungen*) are transient and of slight degree, and the “hyperplasia of the first phase of the process is insignificant.” The atrophy or retraction of tissue, marking the second phase, appears late, and the dilatation of the ventricles, associated with this, is not considerable. In general paralysis, hyperæmia and exudation are very prominent; atrophy is not long delayed, and is frequently accompanied by notable dilatation of the ventricles. Again, in katatonia the arachnoid is more particularly affected at the base of the brain, opacity and thickening of the membrane being very evident there, especially in the portions of it extending from the pons to the chiasma and frontal lobes, and from the temporo-sphenoidal to the frontal lobes. In association with the slight affection of the arachnoid over the upper surface of the hemispheres is the insignificant development of the Pacchionian bodies and epithelium granulations of Meyer (outer surface of arachnoid). In general paralysis, on the contrary, the arachnoid is affected principally over the convexity of the hemispheres. Pacchionian bodies and Meyer’s granulations, if not individually much enlarged (the former are often of great size), are at any rate extensively developed; the latter may be seen over the whole of the convex surface.

With a view to establishing what he believes to be a specially-characteristic pathological feature of katatonia—

the state of the basal arachnoid—Kahlbaum gives the post-mortem appearances in three cases of general paralysis for comparison with the katatonic cases. So far as it goes, the comparison is in favour of his belief. But I think we may fairly expect more evidence in support of a contention of this kind; at present we are left with the record of seven cases of katatonia, three of general paralysis, and a general impression concerning the post-mortem appearances in the latter disease (to the effect that the arachnoid is principally affected on the upper aspect of the brain in general paralysis). That this is very likely correct I do not gainsay, but it is scarcely worth while treating of probabilities when facts are forthcoming.

A question of some interest is the following: Do opportunities often occur in this country for making post-mortem examinations in cases which might fairly be classed under so-called katatonia? Do the cases, in fact, often die? Kahlbaum says that the prognosis in this disorder is "not bad;" this applies both to recovery and maintenance of life. The inference seems to be that not a few cases terminate fatally. My own impression is to the effect that here we rarely see a fatal issue in cases of this kind; but a more important question is that relating to the cause of death. According to Kahlbaum, katatonia is an affection which often causes death without the interposition of other disorders; we need not even fall back upon exhaustion from refusal of food, or an extreme degree of excitement (two possibilities mentioned by the author quoted) to account for death; it is simply the final stage—as it were, "the most extreme development"—of the condition of stupor, the outcome, in short, of the disease. It would be instructive to hear the experience of English observers in regard to this matter. Amongst the cases of melancholia attonita, of stupor with catalepsy, of mania, alternating with a confusional state, stupor, and depression, of "cyclic" disorders, more or less perfect in type; of, in short, complex-mental disturbance coming under the head "katatonia"—amongst these cases, what proportion terminates fatally directly, without intervention of complications? The proportion, I am strongly disposed to believe, will be found to be a very small one, and it will be surprising if inquiry does not show that a large majority of such cases succumb to intercurrent maladies, especially pulmonary phthisis. It may be noted that Kahlbaum himself speaks of the "extraordinarily close

relationship of tuberculosis to katatonia," and in five out of seven of the cases chosen for record by him the lungs were in different stages of tubercular disease, for the most part very advanced. Clearly, these cases cannot be cited as instances in which katatonia directly caused death, nor do I mean to convey that the author brings them forward as such; but, at any rate, in view of the statement quoted above—as to the relationship between tuberculosis and katatonia—and the fact that five out of seven recorded cases had phthisis, one is justified in entertaining some doubt as to the actual cause of death in the many unrecorded fatal cases, which include those in which death was ascribed directly to katatonia.

Amongst the numerous points in the pathological anatomy of cases coming under the name "katatonia," for the determination of which further experience is necessary, there is one point deserving particular attention, to wit, the state of the cerebral area concerned with speech (outgoing language); with this the condition of the superjacent membranes would, of course, be investigated. This point is of special interest in connection with the symptoms of verbigeneration and dumbness. Kahlbaum has drawn attention to the diseased state of the arachnoid in the neighbourhood of the Sylvian fissure, and of the second and third frontal gyri, and has suggested a connection between this pathological appearance and the symptoms referred to.\*

The microscopical examination of the cortex cerebri in cases of katatonia did not furnish Kahlbaum with definite results, but at the date of the memoir under consideration (1874) he had no doubt that the distinctive character of the disease would be established, even histologically, at a later period. I am not aware that any results, based upon microscopical examination, have been obtained since. But this is not the direction in which one is disposed, at the present time, to look for evidence of the distinctive nature of this disorder; the evidence still required is of a clinical kind—such, at least, is my opinion. It is, I think, desirable that the claims put forward on behalf of katatonia should be examined and settled, in order that the term may either be abolished or included in our nosology.

\* In a recent number of "Brain"—not at present in my possession—Dr. Mickle gives very fully the pathological appearances in his case, described in Vol. xii. of the same Journal.



## CLINICAL NOTES AND CASES.

*The Clinical History of Two Cases of Ataxic Paraplegia.* By F. ST. JOHN BULLEN, Assistant Medical Officer, West Riding Asylum, Wakefield.

H. P. B., formerly manager of printing works, æt. 60. Admitted (transfer) 31st July, 1891.

Mentally, slight chronic melancholia, without delusions. When first sent to an asylum, three years ago, had symptoms of mania.

*Family history.*—Father was a fast liver; gouty. A brother died of apoplexy. Denies neuroses in other members of his family.

*Personal history.*—Was in the habit of drinking wine and spirits too often and too freely for many years. Has had four attacks of gout in the hands. Six months before his symptoms showed themselves, he was accustomed to take a morning plunge in one of the Hampstead ponds, and often had to walk bare-footed through snow to the water's edge, and to break the ice before bathing. Also has suffered business losses and domestic troubles. Denies syphilis. He first noticed symptoms of his disorder eight years ago. When rising from a chair he felt propelled forwards, and would find himself perhaps half-way across the room before recovering his balance; at times, too, he was as if intoxicated. Going upstairs or getting into an omnibus became difficult, not because of want of power in his legs, but from uncertainty in placing them; and he got tired very easily. The symptoms belonging to the lower extremities reached in two years' time about their present intensity, progressing very gradually during that period.

Within the last two years has experienced occasionally "drawing-up" sensations in the right hand; there is, however, no actual contraction. This member, too, gets very soon tired, and his writing has deteriorated. The ordinary movements are yet fairly performed. Has, and has had for an indefinite period, tingling and numbness in feet; he knows that sensation there is not so good as formerly. The bare floor-boards feel rather soft and carpet-like, and the difference between standing on carpet and floor is poorly perceived.

Sight in the right eye began to fail seven years ago, and in a little over a year he had become practically blind in that eye. It would appear that he had iritis preceding the vision-changes. Had worn spectacles, however, for some years previously, probably for myopia.

Bladder troubles came on as the earliest symptoms showed themselves. Now he needs to micturate frequently, or his urine would escape from him. There has been recently some laxity of the anal sphincter.

*Physical condition.*—Is fairly nourished; musculature, moderately developed, retains tone in the upper limbs, rather lax in the lower. There is, however, a tendency to rigidity in the legs which somewhat conceals this. The muscular power is diminished. In the lower extremities the muscles of the hip seem weakest, and there

is very little power of resistance to either flexion or extension, especially the former. This resistance is relatively greater in the knee, and greatest in the ankle. No noticeable difference is found between the two legs. When the lower limbs are stretched out in bed any attempted movement throws them into a spastic condition; thus one ankle-clonus is tried for, the foot becomes rigidly fixed in a position of nearly complete extension, and with the patellar-tap the whole lower extremity becomes stiff. Slight clonic contractions in the recti and vasti externi muscles are elicited by traction on the patella, which action also produces pain in the muscles. No direct or reflected contraction obtained by tapping the muscles, nor are these tender when squeezed. There is slight tenderness along the shins.

When the feet are dependent in position, an exaggerated knee-jerk is obtained, and two or three to-and-fro movements of the limb follow. The ankle becomes rigid, just as it did when patient was recumbent. The plantar reflex is acute when evoked by sharp points; tickling with the finger-tips fails to produce it. No cremasteric, abdominal, or intercostal reflexes. Integument of feet rather bluish, and the feet are cold. On the dorsal surfaces of these he cannot distinguish two points 4 c.m. apart; the same with the plantar surfaces; on the toes at less than 2 c.m. He has even to reflect some time before deciding that two contiguous toes are being touched. When one toe only is touched he can name this correctly. Two points, one sharp, the other blunt, applied to dorsum of foot are not distinguished as having different qualities. No apparent delay in sensory transmissions. No analgesia and no loss of temperature-sensibility. When asked to place his legs in various positions without the aid of vision succeeds fairly well, any slight failure being probably due to his want of control over the muscles.

Patient finds it almost impossible to get into the erect posture without some support, nor can he walk except with the aid of a stick. Once upright a certain amount of rigidity sets in, and maintains his legs straight. In walking he bends slightly forward, advances a leg sharply, jerkily, and stiffly, keeping the foot at right angles to the leg, and tending to plant the heel rather forcibly down. The other foot is not taken from the ground until the first is securely placed. Without a stick he sways immediately the one leg becomes the basis of support, and would fall. He totters when stood with feet approximated and eyelids closed; also when rising from and sitting down on a chair under like conditions. During progression there is neither "kick-out" of the legs nor scraping along the ground.

There is no obvious inco-ordination in the movements of the upper extremities. Muscular power is much diminished. Dynamometer gives the following:—

Right hand, 45, with swing, 58.

Left hand, 30.

There is no defect in speech, and movements of tongue, lips, and

face are normally executed. No tremors. Patient says that his taste is not affected. As regards smell, fails to recognize asafœtida (although he is sensible of its unpleasant odour) and snuff. Common sensibility of nasal mucous membrane seems intact. Hearing is acute.

External ocular muscles act well. The condition of the pupils is now:—Right pupil, 1·5 m.m.; left ditto, 2·5 m.m. in the shade. Both contract very readily in the light (and in diffuse sunlight have recently been noted as pin-hole), but neither dilate when yet more shaded. The left pupil is circular, and remains so, whatever be its size; the right is irregular, and when dilated by atropine assumes an elliptical shape, with the lower and outer part dragged slightly downwards and outwards. Here, too, the free edge of the iris appears a little thickened, discoloured, and turned in.

The sight of the right eye is nearly completely gone; he is unconscious of the glare from the ophthalmoscopic mirror; cannot distinguish anything but a dim shadow when approached by a person. Vision in the left eye is failing. He can read with only moderate ease 16 Jaeger type, and with difficulty makes out No. 14. Smaller than this he cannot decipher. Atropine dropped into the eyes produces fair dilatation of left pupil, though far from complete. In the right eye the pupil hardly dilates at all; pin-hole contraction with a bright light is, however, prevented.

My friend, Dr. E. Goodall, makes the following report after ophthalmoscopic examination:—

“Right fundus presents irregular masses of black pigment of considerable size, united by threads of the same, a reticular appearance resulting. The pigment overlies the greater part of the disc, only a small portion of which—above the lower edge—is visible. This showed no signs of recent inflammation, nor could atrophy be diagnosed with certainty, owing to the obscuration of the disc. No recent hæmorrhage. No white patches.”

Left eye appears normal.

H. S., æt. 54, carter. Admitted to Wakefield Asylum September 26th, 1891.

Mentally, a case of depression with delusions of suspicion. Some dementia also.

*Family history.*—Patient's brother had an attack of acute mania; his father drank (towards the latter part of his life only).

*Personal history.*—Has not had any venereal disease. Of very intemperate habits for some twenty years. No sexual excess. About six months before admission he began to notice that on getting up in the morning he felt unsteady, and as if inebriated, or, as he expresses it, “his legs wouldn't work regularly,” and two months after this he found them so weak that he fancied he must have had a stroke during the night, especially as his hands also felt weak. With the development of ataxy in the lower limbs he experienced pains in the calves of the legs and about the



knees, which came on suddenly and lasted for a few seconds, were not severe, and accompanied by a feeling as if the knees were giving way. Denies that he has lost sensation. About a fortnight before admission had numbness and "pins and needles" in both legs for three days. He cannot read, but is sure his sight is quite good. There has been no interference with the normal functions of the bladder and rectum.

*Physical condition.*—Fairly nourished. Forehead low, and aspect indicative of low average of intelligence. External ocular muscles act well. All pupillary reactions normal, and the pupils equal. No apparent loss of vision; no achromatopsia. Tongue is protruded straight, but with some effort, and facial twitchings and jerky movements of lower jaw accompany the act. He tends to close his lips on the tongue to steady it. No fine tremor.

Knee-jerks are exaggerated, and the patellar tap is followed by several to-and-fro movements of the leg. Plantar reflexes are excessive. Ankle-clonus readily evoked and prolonged on both sides. No direct nor reflex muscle contraction obtained on percussion of the muscle itself anywhere. Patient walks on a rather broad base, but swings one foot across the other, in order to try and preserve his balance, which sways from side to side as each leg in succession forms the pedestal of support. Both soles are scraped along the ground, the feet are held stiffly at right angles to legs, and there is distinct heel walk, a plumb-line during progression falling well behind buttocks when suspended from occiput. Each leg is advanced sharply, and for a short distance there is no flexion at the knees to speak of, and the lower limbs are held altogether rather stiffly. He can walk unassisted, but in turning round or standing with closed eyes he shows much unsteadiness; can stoop to pick up an article from the floor, keeping his back straight, and bending well at the hips and knees. There does not seem to be any loss of power in the lower extremities, nor in the back muscles. There is no wasting, and the tonicity of the musculature is fairly good. The relative amount of power displayed is, however, less at the hip than the knee. With closed eyes he has some difficulty in opposing his finger tips or touching his nose with the index finger. When vision is allowed no inco-ordination is obvious, and he can button and unbutton his coat, pick a needle off the table, etc., very fairly well. Dynamometer:—Right hand, 70; left ditto, 50. No analgesia or loss of temperature-sensation. Sensation seems defective in lower extremities. He is often unable to feel his feet being touched by the finger-tips, and even when two fingers are, at a distance of four inches, applied to the dorsum of his foot he is unable to recognize more than one sensation, this even when they are placed consecutively. Sharp points are more accurately diagnosed both as to number and position, but occasionally he is unaware that he has been touched, and often is not able to name the toe or part of the foot to which stimulation is applied. If his signal is given as soon as he experiences a sensation, then sensory-



transmission would appear slightly delayed. He affirms that the difference between carpet and bare boards is naturally perceived. No cremasteric nor abdominal reflexes obtained; no tenderness in muscles when squeezed. Smell is defective; he fails to perceive any odour in musk, snuff, and asafoetida. Taste is fairly good. No loss of sphincteric powers.

The fundi of both eyes appear normal.

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*Cases of Insanity in General Practice.* By A. H. NEWTH, M.D.

(Continued from p. 85.)

I think much may be done as regards the treatment of insanity by studying the various delusions and endeavouring to trace a physical cause for them. It is a well-known fact that persons may be caused to dream of particular things if certain parts of the body are irritated, and delusions are often only persistent dreams.

In connection with these cases I would like to mention one that was brought under my notice.

She was a young woman with chronic mania, quiet in manner, but full of delusions. When admitted to the asylum she was thought to be pregnant, her abdomen being considerably enlarged. She was in the asylum for some years, and this enlargement continued. She was constantly "dirty," and this was considered as part of her mental state. On examination I found that the rectum was loaded with fæces, and it took me some hours to remove it all. As the ordinary scoop was of no use I had to employ the blade of a midwifery forceps. The removal of this mass of fæces relieved the dirty habits, though a daily enema was necessary on account of the atony of the muscular walls of the intestines. The patient improved mentally, but she was phthisical, and died some three years afterwards. It is a question whether if this state of the bowels had been noticed before, the patient might not have had a better chance of recovery; at any rate she might have been discharged from the asylum to the care of her friends.

A lady residing at Burgess Hill was brought to me by her husband for the purpose of being placed in an asylum. She was in an excited, nervous state, with delusions, but was not dangerous to herself or others. Had been in several asylums. Complained of pain in her head, with inability to collect or control her thoughts. Suffering from bilious derangement, flatulence, loss of appetite, foul tongue, clammy skin, pale, flabby countenance, irregular compressible pulse. She had been taking bromides and other sedatives. It was with great difficulty I persuaded her friends not to send her to an asylum, and to discontinue all sedative medicines. I pointed out that her nervous state was due to her physical condition, and that if this were improved she would

be better. I prescribed a mixture containing bicarbonate of sodium, salvolatile, arsenic, and gentian. As she begged for a sedative I ordered her some bromide of ammonia and morphia in small doses to be given not oftener than every six hours. She rapidly improved under this treatment, which was subsequently combined with galvanism, and in a short time was an entirely different person, so that I failed to recognize her when calling to see her after a few weeks.

This was one of those cases in which I think asylum treatment might have done harm, by giving her a feeling of helplessness, and the association with others might have been prejudicial. As it was, I strongly impressed on her the necessity for self-restraint, giving her a few rules for guidance, and pointing out to her husband that firmness with kindness, and absolute rest and quietude, and, above all, not allowing the officious interference of well-meaning friends, must be maintained. She was a lady with strong, but not excessive, religious feelings. She has continued in good health for over six years.

Some time ago I was consulted about a young man whose manner had become very strange. He had been a most dutiful and obedient son, but lately had been squandering his mother's slender income, running into debt, stealing all he could lay his hands on, buying useless things, wandering aimlessly about the country, etc. Was strange in manner, absent-minded, morose, and disinclined for society. He conversed rationally, but constantly committed himself by telling the most outrageous lies. His father and his grandfather died insane; one of his brothers is partially idiotic, his sisters are strange in manner, and his mother is of a neurotic disposition.

At one time, after having been placed under the care of some one who had special orders to keep him in sight, he ran away for three days and two nights, and was found wandering in a wood some distance off. He was brought back straight to me; he then appeared quite changed from what he was, did not seem to recognize me, would answer no questions, in fact did not comprehend what was said to him. He ate ravenously some food that was given to him, and then fell fast asleep for several hours. The mother was very anxious to have her son placed under care, and made inquiries for this purpose; she was also strongly advised to do so by several medical men, including a leading alienist physician.

I, on the contrary, advised her to wait, to have him placed for a time with a friend who had promised his father to look after him. This gentleman interested himself in his behalf, took him into his own house, gave him abundant interesting occupation as an artist, plenty of good wholesome food, etc. I prescribed simple tonic

mixtures. He improved considerably after a time. His mother then had him home again to assist in teaching drawing and painting in her school, and also in Brighton. He relapsed again somewhat, and being a volunteer and fond of a soldier's life, he was persuaded to enlist, and was sent to India. The discipline no doubt did him good, for he has served his time and has become a changed man. I cannot help thinking that if this young man had been sent to an asylum, the result would have been very different.

I will now refer to a young man who has been under my care for over twelve years.

He comes of a high family; his father was a medical man in large practice. One of the brothers died of phthisis; the family are not very strong intellectually, and are intensely selfish and proud.

He was a student at one of the London Colleges, where he entered with the object of becoming a medical man. In 1871 he became insane, showed a want of coherence in conversation, had an obstinate disregard to cleanliness and his personal appearance, saying that frequent washing was an expensive luxury. He did foolish and thoughtless acts.

It was said that over-study had affected his mind. He was placed in an asylum in London in 1872, but was discharged relieved after a few years' residence; he, however, relapsed, and was returned there in 1877, where he remained till 1879, when he was placed under my care. When he came to reside with me his clothes were in a filthy condition, and had to be destroyed. He was in a poor state of health, in fact it was feared he would go into a decline. Mentally he was apathetic and strange in manner, sitting for hours in one position doing nothing, gazing at objects in a queer way, grinning and laughing to himself idiotically. Fancied he was Prince Bismarck, that he had a perfect right to do what he pleased, such as help himself to my things, wind up the clocks frequently, alter the time of them to suit his purpose, and do many other strange things. When remonstrated with he became violent. He was very dirty in his habits at times. By the exercise of great firmness and extreme vigilance, with the threat to send him back to the asylum if he misbehaved himself, and also by teaching him self-restraint, and showing him every kindness when he behaved well, he has considerably improved. He has not had a day's real illness, and his physical health is now most robust.

He is intelligent in conversation, able to make himself useful in various ways; in this I am constantly devising simple exercises. He is now most particular in his personal appearance and the decencies of life, never misbehaves himself, and has perfect liberty.

I feel confident if this young man had been treated properly and individually in the early stages of his malady, he would have been much better mentally than he is. There is now no hope of his being entirely well; his mind is permanently weakened, and, if removed from my care, I feel sure he would relapse.

I was called to see a young man in consultation with a medical man. He was then in a violent state of sub-acute mania, but after a time lapsed into a comatose state. I could find no cause for his illness, but as the father subsequently committed suicide, it is possible there was heredity. He was the son of an inn-keeper in a large way of business, but he did not drink to excess, in fact was most abstemious. His physical health was robust, and he had had no serious illness. He persistently refused food, or could not be got to take it, and he had to be fed on my plan of artificial feeding. I gave him very little sedatives, but relied chiefly on tonics and stimulants. He got better, but for a long time he was childish and apathetic in manner; everything had to be done for him. I employed galvanism, which did him a great deal of good; he roused up under each application, and recognized the benefit of it himself. This, combined with phosphorus and iron, completely restored him to health, and he has continued well for some years.

It would be difficult in this case to say that asylum treatment would have not done him good, but I am inclined to think he would not have recovered so soon in an asylum.

A young lady, who for some time had been melancholic from disappointment in a love affair, suddenly became maniacal, incoherent in her conversation, violent in her manner, biting herself and her attendants, destroying all she could lay her hands on. She was placed under my care, and owing to her extreme violence to herself and others, and her determined suicidal propensity, I felt that the asylum was the only place for her. However, as her friends dreaded this step, and begged me to do what I could for her, promising to give her every attention, I determined to see whether it was possible to treat her at home. After a most trying time of about two months, she has quite recovered. I found in her case that sedatives of any kind did more harm than good, and relied chiefly on good food, tonics, powerful aperients, etc. Once during her illness she swallowed a portion of a liniment which her mother was using that contained belladonna, and had all the symptoms of belladonna poisoning. I administered an emetic and a dose of croton oil, and though she lay some time in an unconscious state with loss of sensation in the lower extremities,



on recovering consciousness she completely recovered. In fact her mental health improved so rapidly after the poisoning that I am under the impression that the effects of the belladonna were of some consequence in her restoration to health, possibly relieving the congestion of the brain by dilatation of the capillaries. Though I have seen belladonna used in cases of insanity it has never seemed to do any good, on the contrary maniacal excitement is apparently increased by it.

Mrs. E.—Case of recurrent mania. She was, in her calm moments, a most quiet, inoffensive person, very pleasant to talk to, retiring in disposition, with deep religious impressions. When she was insane, which occurred about once in two or three months, sometimes longer, she was a perfect demon, full of blasphemous language, exceedingly violent, and homicidal. I noticed that before these attacks she was morose in her manner, face flushed and sallow, conjunctiva yellowish, tongue furred. She suffered when well from indigestion and bilious headaches. A good stiff dose of calomel, if given when she appeared to be relapsing, I found had the beneficial effect of preventing these relapses, so that for some years before she left the neighbourhood she had had no relapse. I have not heard of her since.

Many more cases of mental disease have come under my care which have been successfully treated by means directed to various disorders of the bodily organs. It is only fair to state that in several other instances, owing to want of proper nursing, the impossibility of isolating the patient from disturbing surroundings, and the worries of well-meaning persons, the treatment has failed, and it has been necessary to send the patient to an asylum. In one case where I saw the necessity of asylum care from the first and insisted on it, but failed to persuade the friends to send her, the patient in an unguarded moment hung herself.

I made arrangements to send a patient with mania of lactation and a strong hereditary tendency to an asylum, but the friends were persuaded by another medical man, who was asked to certify, not to do so. She hung herself to the bell pull, but was rescued in time, and eventually recovered. I feel certain, however, that she would have done better in an asylum, and the husband would have been saved much worry and anxiety.

Some time ago I was called in consultation to see a lady suffering from brain softening. She was a perfect nuisance to her friends and neighbours, and her husband's life was

most unenviable. I advised her removal to an asylum. Her medical attendant declined to certify, from fear of the consequences; in conjunction with Dr. Maudsley, I did so. Shortly after I had a visit from the solicitor who managed her affairs; he was indignant at my having sent her to an asylum, and used some threats of an action. But I showed him that whether she was in an asylum or not, so long as she was insane she could not properly sign documents, etc., and heard no more of it. She was perfectly happy in the asylum, fancied it was an hotel, and lived there till her death, some three years afterwards.

T. I., a young man 22 years of age, in good health, came under my care, whom I anticipated treating successfully without sending him to an asylum, but was obliged to do so at last. He had been ailing mentally for two years. "Childish in his ways, will not dress himself or attend to the calls of nature, sometimes takes all his clothes off in the sitting-room. Is averse to society, will not talk or read, nor employ himself in any way. Is lethargic in his movements, and his hands and feet are cold and congested. Talks strangely at times. Everything appears to him to be spinning round at times and he waits for it "to get clear;" complains of giddiness and cannot stoop. There is a history of insanity in the family, and his parents and brother are rather feeble-minded." (*Case Book*).

He was ordered iodides, citrate of potassium, iron, and aperients, plenty of outdoor exercise and good food. I wanted to use galvanism in this case, feeling sure it would have done good, but could not do so. Under this treatment he improved considerably, but in consequence of not being properly looked after, and indulged by his parents, he subsequently became irritable and violent to his mother. He was removed to the asylum, where he was induced to work and was compelled to take proper exercise; he is now quite well.

The conclusions I wish to draw from these cases are the possibility of treating insanity outside the asylum if proper means are used; that instead of treating mental disease by so-called neurotics or sedatives, such as bromides, etc., if a careful investigation is made as to whether the disease may not be a reflex irritation from some organic affection, a more successful result may be anticipated. At the same time it cannot be too strongly insisted that where the exciting cause is due to the patient's surroundings, and when there are not proper means at hand for satisfactory

treatment, and if the patient is suicidal or homicidal and cannot be properly looked after, then no reasonable delay ought to be allowed to interfere with the patient's removal to an asylum.

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## OCCASIONAL NOTES OF THE QUARTER.

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### *Drunkenness and Crime.*

The correspondence between Sir Henry James and Sir Lyon Playfair published in the *Times* of January 5th, 1892, has once more fixed the attention of the public on the vexed and still unsettled problem of the criminal responsibility of the inebriate. It would be obviously unfair, and we do not propose, to criticize Sir Henry James's letter as if it were a draft Parliamentary Bill declaring and formally defining the law of England as to drunkenness and crime. We shall deal with the opinions expressed in the letter, and not with the language in which they are conveyed. Sir Henry James states his views in the following terms:—"In determining the legal character of the offence committed, drunkenness may be taken into account—(1) Where it has established a condition of positive and well-defined insanity; (2) if it produces a sudden outbreak of passion occasioning the commission of crime under circumstances which, in the case of a sober person, would reduce the offence of murder to manslaughter; (3) in the case of minor assaults and acts of violence it never can form any legal answer to the charge preferred, but it may either aggravate or mitigate the act committed—probably the former; (4) as to the effect that should be given to drunkenness when determining the amount of punishment to be inflicted no general rule can be laid down—its existence may be considered, and may tend either in the direction of increasing or diminishing the punishment imposed." This analysis of the juridical character of inebriety is, we venture to think, obnoxious to very serious criticism. In the first place, Sir Henry James would seem to hold that the only cases in which intoxication can diminish the criminality of an act are cases of murder and aggravated assault. We know of no logical or practical justi-

fication for this opinion. The *mens rea* is a necessary element in every crime; inebriety is logically as admissible to negative its existence in a case of horse-whipping as in a case of homicide, and, if public policy is to be considered, the plea of inebriety may surely be allowed with greater safety in the former case than in the latter. Again, Sir Henry James would revive the old, and, as we had hoped, exploded fallacy of the "external standard." A. in a fit of passion produced by drink stabs B. Is the crime murder or manslaughter? How shall we answer the question? Take, says Sir Henry, the ordinary "sober person," C. Assume that under the influence of the same outburst of anger—not induced, however, by alcoholic excesses—he had committed the same act. Would you call his crime murder or manslaughter? Then judge A. by the same standard. This test is liable to two grave objections. It is practically incapable of being applied at all, and even if it were applicable it would work great injustice. The doctrine of the "external standard" was never meant to govern the responsibility of lunatics or inebriates. In the pages of the "Journal of Mental Science" it is hardly necessary to point out that Sir Henry James's proposed criterion is simply the old mischievous test of exculpatory delusion propounded by the House of Lords in *McNaghten's* case. Assume that the delusions were really facts. Would they form a legal justification for what the prisoner has done? In other words, first admit that a man is subject to delusions and then expect him to reason sanely upon them. In the third place, Sir Henry James reasserts the historic doctrine that drunkenness is or may be an aggravation of a crime committed under its influence. It is true that Lord Coke expressed the same opinion. It is equally true that Sir Matthew Hale treated it as being simply the dictum of "some civilians," and declared that the inebriate should "have the same judgment as if he were in his right senses"—nothing less and nothing more. Drunkenness is perfectly different in character from what are usually called "circumstances of aggravation," and should be punished, if at all, as a separate offence. Finally, Sir Henry James's exposition of the law is incomplete. It takes no account of the principle—now judicially recognized—that a plea of inebriety is relevant and admissible, not only to alter the character of a criminal act, but to negative the existence of criminal intent. It



contains no reference to the famous "alloys" which even Sir Matthew Hale annexed to the *voluntarius daemon* theory of Coke; and it is absolutely silent as to, if not, indeed, inconsistent with, the later *nisi prius* developments of the law of "drunkenness and crime." Some of our bolder judicial spirits have treated Coke and Hale with the same scant reverence that Cockburn displayed towards the *wild beast* theory of Mr. Justice Tracy, and the *right and wrong in the abstract* theory of Lord Mansfield. Sir Henry James says that inebriety is an *exculpatory* plea only when it has established "a condition of positive and well-defined insanity." In 1886 Mr. Justice Day told a Lancaster jury that "if a man was in such a state of intoxication that he did not know the nature of his act, or that it was wrongful," he was insane in the eye of the law, and that it was perfectly immaterial whether the mental derangement resulting from such intoxication was permanent or temporary. Sir Henry James would limit the reception of a plea of inebriety by way of extenuation to cases of homicide or aggravated assault. Lord Deas, the modern Braxfield, received it in a case of theft. In 1887 Chief Baron Palles still further relaxed the old legal theory. "If a person," said his lordship, "from any cause, say, long watching, want of sleep, or depravation of blood, was reduced to such a condition that a smaller quantity of stimulants would make him drunk than would produce such a state if he were in health, then neither law nor common sense could hold him responsible for his acts, inasmuch as they were not voluntary, but produced by disease." And in 1888 Baron Pollock held that the law was the same where insane predisposition and not physical weakness was the proximate cause of the intoxication. With great respect to Sir Henry James, we venture to think that when the criminal law of England is codified, as it ought to be, and will be, the criminal responsibility of the inebriate will be defined in something like the following terms: 1. Every man is to be presumed to be sober and responsible unless and until the contrary is proved. 2. In any criminal case a plea of inebriety shall be admissible either (a) to negative the existence of criminal intent, or (b) to reduce an offence from one grade of criminality to another. 3. Intoxication, whether voluntary or involuntary, which does *in fact* prevent a man from knowing the nature and quality of his acts, is entitled to the same privilege that

the law allows to insanity, and is a valid exculpatory and not merely extenuating plea. It is immaterial whether the diseased condition of mind produced by such intoxication is permanent or temporary, continuous or intermittent. Of course, drunkenness voluntarily induced with a view to nerve a man for the perpetration of an offence is not privileged.

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### *Insane Criminals in Belgium.*

Upon representations made by the Minister of Justice last year there has been established in Belgium by Royal decree a service of mental medicine connected with the prisons. It appears from the report made by the Minister that the number of prisoners who in the course of their detention show signs, real or simulated, of intellectual derangement is relatively on the increase. While on the one hand disciplinary requirements demand that prisoners who show insanity should be made to undergo their punishment, it is on the other hand necessary that the authorities should be informed distinctly and promptly of the mental condition of prisoners whose behaviour is evidently due to mental derangement. Humanity demands the removal without delay from prison of those whose mental condition needs the attention which they can get only in a lunatic asylum. The instructions in force prescribe that prisoners who show signs of insanity should immediately be placed under observation; but the appreciation of these signs, and the speedy and certain detection of imposture or disease, usually demand an extensive experience of mental medicine, and frequently a consultation among experts. Upon such considerations the Minister, with a view to the efficient working of the prison medical service, thought it advisable to recommend that alienist physicians should be attached to that service on a permanent footing.

With the view of carrying out this scheme the Belgian prisons have been divided into three districts, each of which will be in charge of a medical expert in insanity, the central administration being generally responsible for the management. The expert examines the cases of prisoners whose anomalous behaviour causes their mental condition to be suspected, and he reports to the central authority, and, if neces-

sary, gives a certificate of insanity. Over the first district Dr. Jules Morel, of the Hospice Guislain, Ghent, presides. Dr. Masoni, Professor in the University of Louvain, and Dr. Semal, Medical Director of the Asylum at Mons, have charge of the other two districts.

We are glad to find that Belgian enlightenment has resulted in such a decided step of advance towards realizing the ideal method of at once safeguarding the proper interests of the insane, and securing the disciplinary correction of criminal impostors. We have always felt that the insanity of the criminal ought to be duly regarded and attended to, just as the insanity of the non-criminal. Cerebral pathology and medical experience are not bounded by social proscription; and wherever disease, mental or otherwise, manifests itself, the physician must proclaim his presence and declare his authority. In officially recognizing this authority, the Belgian Government have done excellent service to the cause of mental medicine, and at the same time to the best interests of humanity. No doubt there must ever be difficulties in carrying out such a scheme as that which has been inaugurated by the Belgians; but a well-placed experience in this direction cannot fail to result in a gain of knowledge which must ultimately be of much practical benefit, both psychologically and socially. The district commissioners who have been appointed to carry out this scheme are physicians of acknowledged eminence and repute, and we are quite sure that in their hands the new service will be most judiciously and successfully administered.

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### *Pensions and Pension Scales.*

The following are instances of the inequality and uncertainty of pensions granted to Medical Superintendents both under the old and the new régime. The Table appended cannot fail to be useful.

#### *I. Under the Old Régime of County Magistrates.*

(1.) North Riding of Yorks.—Dr. Hill, 56 years of age, with 20 years' service, received in 1868 two-thirds of salary only (excluding allowances which were not considered in the calculation), or under one-half of the total value of office.

(2.) Oxfordshire.—Dr. Ley, in 1868, at 61 years of age, for 23 years' service, only received one-third of total value of office, a larger amount having been recommended by the Committee, but reduced by Quarter Sessions.

(3.) Lancashire.—Dr. Broadhurst, 63 years of age, with an excellent record of  $33\frac{1}{2}$  years' service, received in 1876 a pension of less than one-half; whilst Dr. Holland, 65 years of age, with 28 years' service, being  $5\frac{1}{2}$  years less than Dr. Broadhurst, received in 1878 the maximum pension of two-thirds.

(4.) Lincolnshire.—Dr. Palmer, in February, 1888, at 70 years of age, with the lengthened and champion record of 39 years' service, received one-half of total value of office, the amount, £600 (nearly two-thirds), recommended by the Committee having been reduced by Quarter Sessions to £500.

(5.) Dorset.—Dr. J. G. Symes, 61 years of age, with a lengthened and excellent record of 32 years' service, received in 1887 a pension of one-half the total value of office, the amount of £600 (two-thirds) recommended by the Committee having been reduced to £500 by Quarter Sessions.

## II. *Under the New Régime of County Councils.*

(1.) Lancashire.—Dr. T. L. Rogers, 60 years of age, with a long and exemplary record of  $30\frac{3}{4}$  years' service, received in 1889 a pension of one-half the total value of office, the amount, £800 (two-thirds), recommended by the Committee having been reduced to £600.

(2.) London County Council.—Dr. W. G. Marshall's pension of two-thirds, recommended by Colney Hatch Asylum Committee, was opposed and objected to by the County Council in March, 1890, but was, after discussion, ultimately granted; whilst a similar pension of two-thirds (well earned and deserved), which was recommended by Hanwell Asylum Committee, was granted by the same County Council in November, 1891, without a word of objection or a murmur, to Mr. J. Peeke Richards, who is 20 years younger and has put in 15 years less service.

(3.) Yorkshire (South Yorkshire Asylum, Wadsley).—A pension of two-thirds recommended by the Committee to the Male Head Attendant for 33 years' service, was referred back to the Committee for reduction, being considered excessive, but returned to the Finance Committee as originally proposed, and ultimately passed by the County Council on 14th January, 1892.

West Riding.—A report of the West Riding General Asylums Committee on the question of pensions or superannuation allowances to asylum officers, signed by W. Spencer Stanhope, chairman, and dated 24th September, 1891, recommending a scale of



pensions, was submitted to the West Riding County Council and rejected by a very narrow majority.

The scale suggested in this report is almost the same as that adopted by the West Riding Standing Joint Committee for Ordinary Pensions to Police Constables, that "pensions to officers, attendants, nurses, and servants hereafter to be engaged be calculated on the basis of one-fiftieth of their annual salary and emoluments on the average of the last three years, for every completed year of service."

It was also recommended—"That a scale be prepared showing what sum shall be deemed to be the value of the emoluments of each person, for the purpose of calculating pensions."

The report further recommends that asylum officials be divided into two classes, the first class, including those who are brought more immediately in contact with the insane, to be entitled to pensions; the second class, including those officers and servants not directly engaged in the medical and moral treatment of the insane, such as clerk and steward, storekeeper, clerk of works, gardeners, artisans, and labourers, "shall not receive pensions on retirement unless owing to being injured by a patient whilst in the actual execution of duty, or to such other inevitable accident of similar character as shall in the opinion of the Committee render it just that a pension be granted."

The report contains, in Appendix A, a "memorandum of the West Riding solicitors as to the power of the County Council to grant or withhold pensions or superannuation allowances to asylum officers," prepared by Williams and Edwards, West Riding solicitors, dated 26th March, 1891.

Appendix B contains a summary of replies to questions asked of all county asylum authorities in England and Wales respecting pensions to asylum officers.

Appendix C contains three tables showing the number of officers, attendants, etc., with length of service, the number of retirements, and particulars of pensions granted.

This is the most detailed and probably one of the best reports yet issued on the question of pensions to asylum officers.

(4.) Staffordshire.—A pension of £26 a year recommended by the Asylum Committee to an old man, Noah Wigley, 71 years of age, who after 31 years' service was unable to work owing to bodily infirmity, met with opposition at the County Council meeting in February, 1892, but, after discussion, it was eventually granted.

(5.) Northamptonshire County Asylum, Berry Wood.—An ably drawn-up and liberal pension scheme, signed by Earl Spencer (chairman), was approved by the County Council on 30th January, 1890.

It divides asylum officials into two classes (Schedule A and Schedule B) as in the West Riding scheme.

The chief rules are the following :—

- 1st. "That any official of 50 years of age, named in Schedule A, may retire after 15 years' service on a pension not less than one-third, and not more than one-half of his salary and allowance."
- 2nd. "That any official eligible as above who shall remain in the service shall receive an addition to the pension at the rate of not less than one-fiftieth and not more than one-twenty-fifth of his salary and allowance for every year of service after the age of 50 years and not less than 15 years' service at that age. No pension can exceed two-thirds of salary and allowances."
- 3rd. "That resignation shall be optional at the age of 50."
- 4th. "That it shall be compulsory at 55."

(6.) Middlesex. County Council Asylum, near Tooting.—The superannuation allowances scale (as per "Extract from Standing Orders") of this County Council divides asylum officers and servants into two classes :—

1. "Those in whose favour emoluments may be taken into consideration in the calculation of the allowance, one-fortieth of the salary or wages and net emoluments for every year served, the minimum of service being 15 years, and the maximum of allowance twenty-six-fortieths of the salary or wages and net emoluments."
2. "Officers and servants in whose favour emoluments may not be taken into consideration in the calculation of the allowances, one-thirtieth of the salary or wages for every year served, the minimum being 10 years, and the maximum allowances twenty-thirtieths of the salary or wages."

The question of framing a fixed and uniform pension scale for County Council officials might well engage the attention of the County Councils Association.\*

\* We are indebted to Dr. Murray Lindsay for these particulars and for the Tabular Statement which follows.—[EDS.]

## LIST OF PENSIONS granted to MEDICAL SUPERINTENDENTS

Asylums.	Name of Medical Supt.	Age on Retirement.	Length of Service.	Total Value of Office, including Allowances.			Amount of Pension granted.		
				£	s.	d.	£	s.	d.
1. Kent, Barming Heath ... ..	Dr. Poynder	Over 50	13	400	0	0	150	0	0
2. Chester ... ..	Dr. Le Jones	63	25	300	0	0	200	0	0
3. Gloucester ... ..	Dr. W. Williams	60	17	800	0	0	300	0	0
4. Kent, Barming Heath ... ..	Dr. Huxley	Over 50	17	500	0	0	350	0	0
5. Cambridge ... ..	Dr. Lawrence	37	7	—	—	—	50	0	0
6. Oxfordshire ... ..	Dr. Ley	61	23	750	0	0	250	0	0
7. North Riding, Yorks ... ..	Dr. Hill	56	20	1200	0	0	533	6	8
8. Somerset ... ..	Dr. R. Boyd	59	21	800	0	0	450	0	0
9. Derby County ... ..	Dr. Hitchman	60	21	800	0	0	400	0	0
10. Hanwell, Middlesex ... ..	Dr. Begley	71	34	700	0	0	466	13	4
11. Three Counties, Beds, Herts, and Hunts ... ..	Dr. Denne	67	20½	750	0	0	500	0	0
12. North Wales, Denbigh ... ..	Dr. G. Turner Jones	54	27	500	0	0	330	0	0
13. Suffolk ... ..	Dr. J. Kirkman	81	45	1000	0	0	600	0	0
14. Lancaster ... ..	Dr. Broadhurst	63	33½	800	0	0	300	0	0
15. Kent, Barming Heath ... ..	Dr. W. Kirkman	Under 50	12	900	0	0	400	0	0
16. Lanc., Prestwich and Whittingham... ..	Dr. Holland	65	28	1125	0	0	750	0	0
17. Staffordshire, Burntwood ... ..	Dr. Davis	46	22	750	0	0	250	0	0
18. Colney Hatch, Middlesex ... ..	Dr. Sheppard	63	20	900	0	0	450	0	0
19. Surrey, Brookwood ... ..	Dr. Brushfield	54	16	1300	0	0	700	0	0
20. Gloucester ... ..	Dr. E. Toller	52	19	1028	0	0	550	0	0
21. Joint Counties, Monmouth, &c... ..	Dr. McCullough	54	25½	1100	0	0	730	0	0
22. Hants, Fareham ... ..	Dr. Manley	60	30½	1250	0	0	800	0	0
23. Berkshire, Moulsoford ... ..	Dr. Gilland	48	16½	800	0	0	400	0	0
24. Norfolk, Thorpe ... ..	Dr. Hills	58	25	900	0	0	600	0	0
25. Staffordshire, Stafford ... ..	Dr. W. T. Pater	52	Nearly 13	950	0	0	300	0	0
26. Dorset, Dorchester... ..	Dr. J. G. Symes	61	32	900	0	0	450	0	0
27. Sussex, Haywards Heath... ..	Dr. S.W.D. Williams	48	22	1200	0	0	500	0	0
28. Lincolnshire, Bracebridge ... ..	Dr. Palmer	70	39	1000	0	0	500	0	0
29. S. Riding, Yorks, Wadsley ... ..	Dr. S. Mitchell	50	21	1200	0	0	500	0	0
30. Hanwell, Middlesex ... ..	Dr. Rayner	46	16	950	0	0	300	0	0
31. Bristol, Borough ... ..	Dr. Stephens	65	10	500	0	0	250	0	0
32. City of London, Dartford ... ..	Dr. Jepson	55	23	1200	0	0	800	0	0
33. Royal India Asylum, Ealing ... ..	Dr. Christie	About 60	22	1150	0	0	520	0	0
34. Surrey, Wandsworth ... ..	Dr. Biggs	60½	30	1450	0	0	974	0	0
35. Lancashire, Rainhill ... ..	Dr. T. L. Rogers	60	30½	1200	0	0	600	0	0
36. Colney Hatch, London Cty. Council	Dr. W. G. Marshall	71	38	950	0	0	633	6	8
37. Hanwell, London County Council	Dr. J. P. Richards	51	23	1000	0	0	633	6	8
38. Kent, Chartham ... ..	Dr. Spencer	57	31	1050	0	0	633	6	8

Average age on retirement, 57 years.

Average length of service, 23 years.

Average amount of pension nearly £500 (£476 8s. 5d.).

Of the total number, 38, pensioned, 16, being nearly one-half, received the maximum received one-third or under, for short services of under 15 years, and under 50

It is worthy of note that of the last 5 Superintendents pensioned by County

In addition to the above-named 38 Supts., three have received pensions, viz., Dr.

kindly gave particulars of their Pensions, but "not for publication," and—

Ipswich Borough Asylum ...	Dr. Long	37	7	500	0	0	100	0	0
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## of COUNTY and BOROUGH ASYLUMS in ENGLAND and WALES.

Proportion of Pension to Total Value of Office.	By whom and when granted.	Remarks.
Little over a third Maximum two-thirds	Committee of Visitors, 1851 " " 1854	Dr. Poynder was the first Supt. Was non-resident, only visiting asylum once a week; also had a large private practice in Chester.
Little over a third Maximum two-thirds	" " 1862 Quarter Sessions, 1864 " " 1867	Retired in ill health. "Granted for 12 years should he live so long." Died in about 18 months or 2 years. Larger amount recommended by Com- mittee but reduced at Qr. Sessions. Two-thirds of salary only.
A third	" " 1868	
Nearly one-half	" " 1868	
Little over one-half	" " 1870	
One-half	" " 1871	
Maximum two-thirds	" " 1872	
Maximum two-thirds	" " 1874	
Maximum two-thirds	" " Oct. 1874	
Under two-thirds, = three-fifths	" " 1876	
Less than half	" " 1876	
Under one-half	" " 1876	
Maximum two-thirds	" " 1878	
A third	" " 1880	
One-half	" " 1881	
Nearly two-thirds of £1100	" " 1882	
Over half, = fifty-three per cent.	" " 1882	
Maximum two-thirds	" " 1883	
Maximum two-thirds	" " 1885	
One-half	" " Jan. 1887	
Maximum two-thirds	" " 1887	
Nearly a third	" " Ap. 1887	
One-half	" " Ap. 1887	£600 recommended, reduced by Quarter Sessions to £450.
Under one-half	" " 1888	
One-half	" " Feb. 1888	£600 recommended, reduced by Quarter Sessions to £500.
5-12ths, = nearly one-half	" " Oct. 1888	16½ years as Supt., 4½ years as A.M.O. Pension calculated at the rate of 1-50th of salary and emoluments for each year's service.
Under half of salary only	Mid. Quarter Sessions, Nov., 1888	Granted according to no rule or scale.
One-half	Town Council	
Maximum two-thirds	City of London Corp., 1887	
About one-half	Dec., 1891	
Maximum two-thirds	Mid. Cty. Council, Jan., 1889	
One-half	Lanc. Cty. Council, 27 Mch., 1889	Amount of £800 (½) recommended by Committee was reduced by County Council to £600.
Maximum two-thirds	London Cty. Council, Mch., 1890	
Maximum two-thirds	10 Nov., 1891	19 years as Supt., 4 years as A.M.O.
Maximum two-thirds	County Council, 17 Feb., 1892	17 years as Supt., 14 years as A.M.O. Pension calculated on salary of £800 (and allowances) prior to increase of salary to £900 a few months previously

num of two-thirds, 16 received one-half, or nearly one-half; and the remaining 6 years of age, having retired in ill health.

Councils, 4 received the maximum of two-thirds, and 1 received one-half.

Wickham, Newcastle Borough Asylum, and Dr. Orange, Broadmoor Asylum, who

One-fifth.

Town Council, 1877

Pension granted for 10 years should  
he survive. Only lived one year.



## PART II.—REVIEWS.

*Memoir of the Life of Lawrence Oliphant.* By MARGARET O. W. OLIPHANT. In two volumes, seventh edition. Blackwood. 1891.

The fact that a man has, towards the end of his life, fallen into some dismal error, leads us to reconsider all his qualities in order to find out something which might account for his failure. We thus approach the life of Lawrence Oliphant with a species of prejudice against him. It is a popular book, written by an author who knows well how to write for the public; but in reviewing it in this Journal, we are naturally inclined to look upon the work as a psychological study. This is, assuredly, not taking it at its best side. The picture presented to us is that of the only child of a fond father and mother, brought up in Ceylon amongst a soft and yielding race. He received a desultory education, but being naturally clever and sympathetic, he acquired a good deal of knowledge and many accomplishments. Favoured by circumstances, he travelled widely, saw many countries, and became familiar with the ways of men of different creeds and nations. He visits Jung Bahadur at Nepaul, then goes to study law in London, and passes as an advocate in Edinburgh after a very slight preparation. As private secretary to Lord Elgin, he accompanied that gifted ambassador to the United States, Japan, and China, and finally got into Parliament. He wrote a book of travels in Nepaul and several novels dealing with fashionable life in London, and enlivened the dulness of Blackwood's magazine with some satirical sketches. Lawrence Oliphant thus appears as a man of great natural powers, of unusually versatile mind, and though somewhat vain and fond of pleasure, yet a good deal higher than an ordinary voluptuary. We think that Mrs. Oliphant, who is in no way related to the subject of the biography, somewhat spoils the effect of her portraiture by painting without shade. Sir Anthony, Lady Oliphant, Lawrence, and his wife Alice are held up as archetypes of wisdom and virtue, but we do not know human beings unless we know their faults. Lawrence appears to have been brought up in a religious manner; but mixing much with people of various creeds, he fell into a state of scepticism, which was confirmed by what he had observed of the bad life of professing

Christians, and the callousness and selfishness of the clergy. He seems to have favoured a system of philosophical theism like that of Theodore Parker, but this, apparently, did not satisfy the yearnings of his heart. People who have rejected the recognized forms of religion are liable to take to some doctrines of a novel character. We see in the present day attempts to construe a new faith, based upon experiments and scientific analogies, with the help of the clairvoyants and spirit rappers. These persons number among their converts men who have lived in avowed atheism, like Robert Owen and others who might be named.

Lawrence Oliphant had tasted all the pleasures of life and found that they did not satisfy. He had deep experience of the selfishness and hollowness of the fashionable world, and the tiresome character of their affectations and their amusements. It is in no way surprising that he should have at last turned away with a longing for something better. Schopenhauer has observed that it has often happened that men who have led a very restless life in the full strain of the passions, kings, heroes, and adventurers, are apt suddenly to change and to betake themselves to resignation and penance, and become hermits, and that it is amongst the French, the most cheerful, gay, sensuous, and frivolous people in Europe, that the strictest of all monastic orders, the Trappists, has arisen. If Lawrence Oliphant had left his uneasy scepticism to take refuge in the bosom of the Infallible Church, no one experienced in life would have wondered. What makes the antithesis so striking is that the accomplished diplomatist took for his spiritual guide an obscure preacher from the United States. This was a man called Thomas Lake Harris, whom he met in London about the year 1860. Lawrence Oliphant, now thirty-one years of age, and accustomed to deal with the deceitfulness of the world, accepted this man for his spiritual director with the blindest trust. Harris got Lawrence Oliphant to give up his money for the benefit of a community which he founded at Brocton, in the States, by Lake Erie. He forbade his convert, recently elected for the Stirling Burghs, to speak in Parliament; he kept him from marrying a young lady of fortune until at last an ungracious consent was obtained. At Harris's command, Oliphant left his luxurious life in London to work like a farm labourer at the settlement in America, which was mainly purchased with the Oliphants' money. His widowed mother, Lady Oliphant, also became a convert, and went to wash and mend the clothes of the faithful, and his wife was separated

from him and sent, by Harris's command, to California to earn money for the new Utopia, by trying to teach her accomplishments and graces to the colonists of the West. Thus Harris succeeded in conquering the most powerful passions of the human heart, the taste for ease and pleasure, the love a man bears to his mother, to his wife, and to his own reputation amongst men, in exchange for the hope of a nearer union with God and the regeneration of the world.

Here we naturally look for a portrait of Harris, which, unhappily, is wanting in the book. We read in the *Standard* the complaints of one of Harris's admirers that Mrs. Oliphant had neglected to take advantage of promised information about the conduct of the saint, and though the biographer gave a satisfactory explanation why this offer had not reached her, one might have hoped that it might have been made useful for subsequent editions. However this may be, Harris looks in her book a more mythical person than Sankya Muni.

Mrs. Oliphant assures us that she has done her best, but has failed to get sufficient information about this man. She is inclined to think that the sketch of a character in Oliphant's novel, "Masollam," is really descriptive of the American preacher. Since the publication of the biography Mr. Harris has himself condescended to appear in a less shadowy character. We have been favoured with a pamphlet\* in which he states his claims as a regenerator of society. Mr. Harris possesses a powerful, though somewhat turgid style, and an ineffable faith in his own merits. He assures us that he discovered in early manhood the key to the harmonic law of Pythagoras, which is one in essence and effect with the law expressed in the sayings of Christ. He has received the gift of the Holy Ghost, a new respiration and vitality, which is shared by his followers all over the world, who, to obtain the gift, must first accept the common burden and sorrow and service of mankind. He claims to have "for co-labourers and co-discoverers eminent divines of the Church of England, and of the orthodox and liberal denominations, authors and professional men of well-known distinction, and learned Oriental scholars." As the prophet is now old, it is fortunate that he has already begun to turn younger. "I have passed through December," he writes, "and am now in the May-time; conscious that I hold in quickened mind and flesh the final secret and method and

\* "Brotherhood of the New Life: Its Fact, Law, Method, and Purpose. Letter from Thomas Lake Harris." London: E. W. Allen. 1891.

law and power for the resuscitation, the rehabiliment, the organic restoration of the nobler multitudes of earth's aged and almost exhausted race. No more an old man of nigh seventy, but now renewed in more than the physical and mental prowess of the early prime." In the appendix to his letter he tells us that his "natural person is divested of the obsolete remains, the failing passions of old age, and the tendencies that result in final decease." He seems to expect that death has no power over his body. Mr. Harris admits that he still wears the appearance of old age upon the surface; but, of course, this does not matter much with one who has no desire to return to the vanities of youth, if he ever gave way to them, while "for practical purposes, the frame is vivified and penetrated by a divine, natural youthfulness and radiance."

Mr. Harris proclaims his intention of giving his works, already privately circulated, to the profane public, as is thought desirable, at prices that will defray their mechanical cost. Though we are curious, for the cold purposes of psychological analysis, to have further revelations from Mr. Lake Harris, we feel bound in conscience to repeat to him the advice of Burns to one eager to try his fate in guid black prent: "I red you, honest man; tak' tent. Ye'll show your folly."

The criticisms indulged in by a certain class of newspapers growing out of the misrepresentations in the recent memoirs of Mr. Lawrence Oliphant, are treated with lofty disdain: "Men do not," the saint remarks, "bandy words with carrion. For the function of the respectable publicist no person has a higher esteem. For the nasal purveyors of the sensational Press, who prowl about the kitchen middens, and who from the smell of the waste-pipes, presume to sit in judgment on the aromas of the *salon*, I hold no more than a kindly contempt."

Claiming direct communication with Christ, Harris exacted from his followers a more unhesitating obedience than the General of the Jesuits. The Communistic system which he tried to found was agreeable to Oliphant's social and political aspirations, for he had a horror of our modern fashion of competition. He remained two years working as a carter at Brocton, then he was sent to speculate as a stockbroker at New York to gain money for the community. In time, through processes which are not explained to us, Oliphant's faith in the prophet began to dwindle away. His doubts were increased by Harris's heartless treatment of Lady Oliphant



during an illness which ended in her death. His mother herself helped to open his eyes by pointing out some little weakness in the prophet's behaviour. Oliphant's wife, who had returned to England, was the last to lose her faith in the saint. Harris tried to take advantage of this by recommending Mrs. Oliphant to make an application to get her husband committed to an asylum, because he was anxious to get back his money. This proposal was sufficiently simple to make us believe that Mr. Harris, at least, was a steadfast believer in his own pretensions, though we should have thought that a regenerator of the world of his stamp would have been the last to appeal to the physicians of our specialty for aid in his pious undertakings. After a lengthened lawsuit, Lawrence Oliphant recovered some of the money which he had invested in the Brocton community. His mind, however, kept the deep, religious hue with which it had become imbued. With his wife he went to found a new community at Haifa, in Syria. Together they wrote a mystical book called "*Sympneumata*."

To the end of his life he retained some fantastic notions, such as spiritual communion between the dead and living, founded upon very insufficient evidence. After the death of his first wife, he married Rosamund Owen, daughter of Robert Dale Owen, and granddaughter of Robert Owen, the socialist, assigning as a reason that her faculty of internal insight was so intense that "we felt, after an hour's interview, that we must combine," so they embarked to go to Haifa together. On the passage she was brought into very close relations with Alice (the late Mrs. Oliphant), and at the same time "felt that Alice wanted me to give her the protection of my name."

Lawrence died in England a short time after this marriage, towards the close of the year 1888, leaving his memory as the subject of an interesting biography, which is likely to survive his own writings. He seems to have been a man of great sympathies, inwardly deeply religious, kindly, and honest, outwardly brilliant and accomplished; but unfortunately destitute of a scientific training, and not possessed of a very correct judgment. We say this independently of his dreadful mistake about Harris; for example, he seems to have been most unfortunate in his political forecasts. He said that Jung Bahadur would lose his head, that after the French war of 1870 there would soon be a republic in Germany, and that France was ruined without any hope of revival. We cannot see any adequate grounds for hazarding the last two predictions, and all three were falsified by the events.

Though he could write very sensibly on the visionary claims of Esoteric Buddhism, Mr. Oliphant, in his gropings after the unseen world, showed a credulity which might well arouse doubts of his sanity. In his anxiety to believe what he wanted, he attributed nervous changes of sensation and new thoughts arising in his mind to the influx of spirits, and especially to the agency of his dead wife. People, however, have not yet come to regard such vagaries in belief as forming any sufficient reason for denying the responsibility of those affected, and depriving them of their civil rights. It would, therefore, serve no useful purpose to discuss the speculative question whether Lawrence Oliphant's credulity in religious matters ever passed from the stage of foolishness into that of lunacy.

We have been deeply interested in these volumes, and commend them warmly to our readers. After all, Mr. Oliphant was a man to be loved and pitied, and with regard to the authoress, her style, her impartiality and graphic descriptions have produced not only a readable but a charming work.

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*La Grippe et l'Aliénation Mentale.* Par ALBERT LELEDY, M.D.  
Paris: Baillière et Fils. 1891.

Literally influenza is in the air, and we hardly know whether it is not likely to establish a permanent residence with us. Each of us finds something interesting in its symptoms, which are so general that every specialty has a share.

Recent epidemics have been supposed to have presented more frequent affection of the nervous system than former ones, but we think this is probably because they have been more looked for. In epidemics of the last century there are records of hysteria, hypochondria, and nervous prostration, and in all probability there is little difference between the recent and the more distant affection. It is certain, however, that the three recent occurrences, or recurrences, of the malady have each been characterized by special peculiarities, in one the coryzal symptoms being the more marked, while in another the rheumatic or gastro-intestinal ones have predominated. In our experience the nervous symptoms have followed the various forms of onset in very equal proportion.

Dr. Leledy, as well as Dr. Ladame, have collected cases of insanity and other neuroses as seen following influenza, and

more recently Dr. Savage read a paper on the same subject before the Medical Society of London.

Some sceptics were inclined to scoff, and to say that the insanity followed the influenza, but had no real connection with it. We will refer such doubters to the book of Dr. Leledy, and we think they will be satisfied.

The book under consideration is of nearly 200 pages, and gives a very carefully-arranged clinical history of the experiences of the author. An index, as usual in French books, is wanting, but a very copious bibliography is appended, and the summary, which we shall proceed to quote and comment upon, is excellent.

#### *Conclusions.*

1. "Like other infectious disorders, such as small-pox, typhoid, and diphtheria, influenza may give rise to nervous disorders." We do not think there is any special relationship between the febrile process and the nervous disorder. We are inclined to think the post-influenzal neuroses resemble the post-diphtheric and syphilitic more than those following typhoid or small-pox.

2. "Insanity may follow at any time after the influenza." This, too, we have found to be the case, so that in many cases the insanity developed at once, there being a direct passage from delirium to delirious mania, or from simple depression and weakness into melancholia; while in other cases the mental symptoms did not arise for some weeks after the influenza, and were not always easily connected with the acute symptoms.

3. "Every form of insanity may arise as a result of influenza." In our experience of the earlier cases we are inclined to think by far the larger number of patients were affected with melancholic symptoms, but we are now meeting with many in whom other forms of disorder, such as delusional insanity, is well marked. Various forms of recurrent insanity are started by the influenza in unstable subjects, and in some, degeneration progresses very rapidly after influenza has occurred.

4. "There is no special symptomatology of post-influenzal neurosis."

5. "The role played by the influenza varies greatly, being in some cases the essential cause, but much more frequently only the exciting one." It acts on the unstable by inheritance, or by acquisition, as an exciting cause. Thus patients who have had previous attacks have frequently broken down as a result

of a slight attack of influenza, and persons who have been alcoholics, and women about the menopause, have become insane for the first time after influenza.

6. Thus "the influenza may be the predisposing or exciting cause."

7. "Probably in all cases there is some other predisposing cause," or the influenza would not have been enough to upset the nervous balance.

8. "Probably the mental disorders depend on nutritional changes in the brain, which may depend on some special toxic principle" or organism. Dr. Althaus suggests that there may be a grippotoxine which chiefly affects the bulb. This has certainly not been established.

9. "The onset of the mental symptoms may be sudden, and may have no relationship to the severity of the influenza," though in our experience the recurrence of the latter has distinctly a serious effect in producing mental breakdowns.

10. "The duration is shorter, and the curability is greater, the less the predisposing cause;" that is, the more the disorder depends on simple influenza. We are not quite at one with our author on this matter. We believe the instability of the individual may render him more liable to break down, and more easily re-established on his old basis. "The insanity may pass into chronicity or incurability."

11. "Among the insane few cases of influenza were at first reported," but this has changed during the more recent epidemic in England, at least. It has been pointed out by Dr. Sisley that prisons as well as asylums were very free from influenza, and he considers this to depend on the isolation of the patients, and makes it a strong piece of evidence in favour of the contagion of the disease. Recently we have seen hospitals for the insane with almost as many patients as attendants suffering; so the neurotic do not escape.

12. "Rarely the acute disorder cures the insanity." We should say very rarely, though remission and temporary relief is not uncommon.

13. So that the patients who are more reasonable during the influenza fall back when they recover their general health.

14. "There is nothing of special import in the treatment of such cases." One must treat the influenza first, and condition the surroundings for the insanity.

15. "Medico-legal questions may arise directly or indirectly from post-influenzal neuroses."

By thus taking the conclusions of our author we have laid



before our reader all that is noteworthy in the book, and we feel that there is ample ground for the superintendents of asylums to fill in the sketch thus placed before them.

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*Herndon's Lincoln: The True Story of a Great Life.* By W. H. HERNDON and J. W. WEIK. Three Vols. Chicago: Belford and Co. 1891.

This work, recently published in America, has at present attracted little attention in England, but it is of great interest, and perhaps of especial interest to the student of morbid psychology. Mr. Herndon is a lawyer, and for over twenty years he was Lincoln's partner. Since the President's murder in 1865 he has been diligently accumulating the written and oral evidence of those who knew Lincoln personally, in order to supplement his own reminiscences. He has genuine reverence for his hero, but he believes also that there is now no need for reticence. The formal and official life of Lincoln has been written by Nicolay and Hay, but Herndon's "Lincoln" is probably a work of deeper and more abiding human interest.

Abraham Lincoln was born on the 12th February, 1809. His mother, Nancy Hanks, from whom he chiefly inherited, was the illegitimate daughter of a Virginia farmer or planter. Lincoln's theory was that illegitimate children are brighter and sturdier than those born in lawful wedlock, and he believed that all his own best qualities could be traced to this illegitimate union. Mrs. Lincoln is described as of feeble physical development. "Her skin was dark, hair dark brown, eyes grey and small, forehead prominent, face sharp and angular, with a marked expression of melancholy, which fixed itself on the memory of everyone who ever saw or knew her." Thomas Lincoln, the father, "was not only devoid of energy and shiftless, but dull." After marriage his wife taught him to write his name and to spell his way through the Bible. He was unsuccessful in everything he undertook; the only skill he possessed was as a hunter, but he never brought it into play except at the urgent demand of his stomach.

At the age of eleven began Lincoln's extraordinary increase in stature; at seventeen he was 6ft. 2in. in height, and at the same time his strength was equal to that of three men. While still a child his mother died, and the widower

shortly afterwards married a widow, whom he had known since childhood. "Her newly-adopted children, for the first time, perhaps, realized the benign influence of a mother's love." With this marriage young Lincoln's education began. His originality and tastes appeared at an early age. Although with a marked dislike for manual labour, he was mentally energetic in a very high degree, and his memory was very retentive. He also wrote much verse, especially lampoons rather coarse in character. While during much of his youth and early manhood Mr. Herndon thinks he may be described as a "loafer," he also did much rough manual work. Once, when engaged with an old mare in working a mill of primitive construction, he struck the mare, and in the midst of exclaiming "Get up, you old hussey!" she suddenly elevated her shoeless hoof, and, striking him on the forehead, sent him bleeding and senseless to the earth. He was thought dead, but became conscious the next day. As cerebral action again began he automatically completed the interrupted sentence, "you old hussey."

The extreme melancholy which Lincoln inherited in a more intense form from his mother was marked in him throughout life. In 1835 the girl to whom he was engaged, the first and probably the only woman whom he really loved, died. This had a very serious effect upon his mind. "If, when we read what the many credible persons who knew him at the time tell us, we do not conclude that he was deranged, we must admit that he walked on that sharp and narrow line which divides sanity from insanity." He was carefully watched, as it was thought he would kill himself, and his recovery did not take place until many weeks after. "There is no question that from this time forward Mr. Lincoln's spells of melancholy became more intense than ever." About two years later he declared to a friend that "although he seemed to others to enjoy life rapturously, yet when alone he was so overcome by mental depression he never dared to carry a pocket-knife." Very soon after the death of the girl whom he loved, however, he proposed to marry another young lady, for whom he appears to have had no serious affection, and who refused him.

The history of his marriage some years later is characteristic. A very few months after having proposed to a girl of sixteen, by whom he was rejected, he became engaged to Mary Todd, a brilliant young lady, belonging to an old and distinguished family. There appears to have been little

love on either side; it was a matter partly of promises, partly of ambitions. The marriage was to take place on the 1st of January, 1841. All was ready, but no bridegroom appeared, and the guests at last quietly dispersed, leaving the wedding supper untouched. At daybreak Lincoln was at last found, "restless, gloomy, miserable, desperate." His friends, "fearing a tragic termination, watched him closely in their rooms day and night." In a few weeks he began to improve, and he wrote to a friend: "I am now the most miserable man living. If what I feel were equally distributed to the whole human family, there would not be one cheerful face on earth. Whether I shall ever be better I cannot tell—I awfully forbode I shall not. To remain as I am is impossible. I must die, or be better, as it appears to me." At this time he wrote and published a paper on suicide. The marriage would never have taken place if it had not been for the intervention of a diplomatic lady who brought the couple together again, and two years later, "as pale and trembling as if being driven to slaughter," Lincoln was at last married to Mary Todd. When dressing for the wedding an innocent little boy asked him where he was going. "To hell, I suppose," he replied. However unhappy the marriage may have been, Mr. Herndon holds that much of Lincoln's success was due to his wife, as well because of her acuteness and ambition as because her conduct drove him from the house and induced him to take a greater interest in politics. After his death she developed many eccentricities, and appears to have died insane.

Much interesting information is given concerning Lincoln's personal appearance, showing that he was physically of a distinctly low type of organization, such as is usually associated with some degree of hereditary degeneration. "His feet and hands were large, arms and legs long and in striking contrast with his slender trunk and small head." His height was 6ft. 4in., and he could throw a cannon ball farther than anyone in New Salem. He attributed this to the great length of his arms. He was lean, and remarkably ungainly in figure and movement—"the ungodliest figure I ever saw," as someone described him. He was thin through the chest and stooped slightly. Apart from the sad, pained look of his wrinkled face, there was no fixed or characteristic expression. His complexion was a dark yellow, his eyes were small and grey, with a sad, dreamy expression; his hair was almost black, nose asymmetrical,

cheekbones high and prominent; ears large and standing out from the head almost at right angles. The head ran backwards, the forehead rising at a low angle; diameter of head (measured apparently from hat) from ear to ear,  $6\frac{1}{2}$  ins.; antero-posteriorly, 8 ins.; the jaws were long. His voice, especially when he began a speech, was shrill, piping, and unpleasant. He suffered much from his liver and constipation. His most prominent characteristic was melancholy. It was said of him: "I thought then, and think now, that I never saw so gloomy and melancholy a face in my life."

Although Lincoln's mind was keenly analytical, and he was (as Mr. Herndon for the first time conclusively shows) a thorough-going free-thinker, he was at the same time very superstitious and fetichistic. When his son was bitten by a mad dog he took him to a mad-stone. He attached great importance to dreams. After his election in 1860 he saw a double image of himself in a mirror. He always said, "I am sure I shall meet with some terrible end." The end came on the 14th April, 1865.

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*Differences in the Nervous Organisation of Man and Woman: Physiological and Pathological.* By HARRY CAMPBELL, M.D., B.S.(Lond.). London: H. K. Lewis, 1891 (pp. 383).

This interesting essay is written in Dr. Campbell's usual thoughtful and suggestive, though not always very conclusive, manner. It covers a considerably larger field than the title indicates, for the writer found as he went on that the subject broadened out in many directions. The early chapters (dealing with the evolution of sex and containing a critical account of the views of Weissmann, Geddes and Thomson, etc.) and the concluding chapters (dealing with the intellect, emotions, and will) are, indeed, of a speculative character, and have a rather remote connection with the subject. Dr. Campbell urges, however, that "it is impossible to study any question from too many points of view, and that the wider our survey the more thorough our knowledge and the deeper our insight are likely to be in the end." He criticizes with an open mind, and his conclusions, so far as he arrives at any, have an independent value. A guarded adhesion is given to Weissmann's doctrine of the non-inheritance of acquired characters, and it is asserted that we shall eventually have to accept "the view



that it is essentially by natural selection, and by natural selection alone, that mental evolution has proceeded."

Among the points of nervous difference dealt with are the comparative liability of man and woman to gross lesions of the nervous system, the resemblances between women and children, the comparative intellectual capacity of the sexes, the egoism of man, the faculty of perception in man and woman, the sexual instinct, the influence of sex on suicide, the comparative nervous plasticity of the sexes, and the relative clannishness of men and women.

Dr. Campbell has not been altogether fortunate in dealing with the relative frequency of insanity in the sexes. There have been no recent investigations into this interesting field, but the statistics here brought forward are, for the most part, over a quarter of a century old, and Dr. Campbell has altogether missed the important fact that, as the result of a gradual change in the sexual incidence, women in this country are now as liable to insanity as men, indeed, slightly more so.

There are some interesting chapters on the monthly rhythm, which, with varying success, Dr. Campbell endeavours to trace before puberty, after the climacteric, and in men. He does not, however, appear to be quite on the right track in seeking this periodicity in pathological manifestations. If there is a menstrual rhythm apart from menstruation, it must be sought in phenomena which, like menstruation, are physiological, not pathological. Unless Dr. Campbell can bring forward careful observations, carried on over a long period, of the pulse, temperature, etc. (and this is not difficult to do), he will scarcely be able to prove a monthly physiological rhythm in men. It is remarkable that no reference is made to the most important contribution brought to our knowledge of this subject in recent years, viz., Prof. Nelson's observations on himself (published in the "*American Journal of Psychology*"), showing a monthly rhythm in dreams and in seminal emissions during sleep. Nor is any reference made to Gaëtan Delauney, one of the chief of Dr. Campbell's predecessors in the general study of secondary sexual differences in men and women.

The book covers a large field in a very incomplete manner, but it is the contribution of a thoughtful writer of varied culture, and brings many new facts and suggestions to those who are engaged in the study of a difficult subject.

*Die Psychopathischen Minderwertigkeiten.* Von Dr. J. L. A. Koch. *Erste Abtheilung.* Ravensburg: Otto Maier. 1891.

The author of the well-known *Leitfaden der Psychiatrie* here presents us with the first part of a work on the borderland of insanity which promises to be of some importance. The not very translatable term which Dr. Koch uses here (as in former works) to denote this borderland, does not seem very happily chosen, but it is explained that "nervosity," "neurasthenia," and similar terms were found to be not sufficiently comprehensive. It is desired to include all the psychic abnormalities, congenital or acquired, which influence the personal lives of men. These conditions are carefully distinguished from insanity, though they may sometimes pass over into insanity; and while he finds them widely spread, Dr. Koch tells us that he is not among those who find psychic abnormality everywhere. This volume deals only with permanent congenital conditions, including various forms of psychic eccentricity and perversity, more especially the numerous forms of obsession, their relation to insanity, and their treatment. The persons thus afflicted may rank intellectually far above the average of humanity, but the cause of their abnormalities lies beyond the physiological limit in pathological regions, and the study of them may, as Dr. Koch holds, be of far-reaching significance as regards both practical and theoretical psychiatry.

Dealing with the medico-legal aspects of the matter, Dr. Koch is in favour of admitting "diminished responsibility," being at the same time opposed to "extenuating circumstances." In dealing with those who possess contrary sexual tendencies, he believes that we have to recognize that such persons cannot be punished for actions which in normal individuals are unnatural, but which, from pathological causes, are in these abnormal persons natural. At the same time they should not remain absolutely unpunished when they adopt criminal means (such as the seduction of young boys) to gratify their sexual instincts.

The book is written with perhaps too strenuous an attempt at condensation, and it may be that scarcely sufficient recognition is given to other workers; the classification and distinctions introduced are also sometimes open to the charge of being over-subtle. Numerous interesting cases are given in

detail, and Dr. Koch lays due stress on physical abnormalities. The book cannot be neglected by those who concern themselves with the extensive frontier provinces of insanity.

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*Nouvelles Recherches de Psychiatrie et d'Anthropologie Criminelle.* Par C. LOMBROSO. Paris : Alcan. 1892.

In this little volume of the well-known Bibliothèque de Philosophie Contemporaine, Prof. Lombroso brings together a summary of the chief investigations in scientific psychiatry having reference to criminal anthropology, which have been made during the last eighteen months. That is the period which has elapsed since Prof. Lombroso published a similar volume in the same series under the title of *L'Anthropologie Criminelle et ses récents Progrès* which was noticed in this Journal at the time. The first chapter deals with observations and statistics as to morphological abnormalities, and gives a summary (with illustrations) of the observations on Charlotte Corday's skull. The second chapter deals with studies on the living (criminals, prostitutes, and normal persons), as to hands, feet, teeth, ears, sexual organs, etc. Chapter III. is concerned with physiognomy. Chapter IV. describes certain new varieties of criminal, more especially Brouardel's feminine type, and Benedikt's congenital vagabond. Chapter V. summarizes Bergk's observations as to tattooing among Danish prostitutes, and Guerrieri's on young Bolognese criminals. Chapter VI. deals with functional abnormalities, such as those of touch, left-handedness, and the remarkable observations of Ottolenghi on the limitations of the visual field. Chapter VII., on etiology, deals with morbid heredity, the town of congenital criminals (Artena, in the province of Rome), described by Sighele, and the causes of revolutions and of prostitution. Chapter VIII. is occupied with the investigations of Semal, Ardù, Morselli, Garnier, etc., into criminal insanity; while the last chapter deals with the latest observations into the relationship between criminality and epilepsy.

It will be seen that this little book is of great interest. It is somewhat marred by occasional slight mistranslation of the investigations summarized, and by the misspelling of proper names, but it is certainly a book to be read by all those who are interested in the modern developments of mental science, and who are not able to follow the international ramifications of periodical literature.

*Lehrbuch der Psychiatrie für Studirende und Aerzte.* Dr. THEODOR KIRCHOFF, Arzt an der Irrenanstalt zu Schleswig und Privat Docent an der Universität Kiel. Leipzig and Wien. 1891.

This volume of over 500 pages is one of a series of handbooks similar to those published by Cassell and Co. in England. The author in his preface apologises for sending another book on insanity upon the book world, but being requested to provide a handbook for students and doctors, he has given his experience, and has also produced a book which represents the teaching in Germany of the psychological medicine of to-day. He points out that psychology is so indefinite a science as yet, and is making such rapid progress along certain lines, that fresh arrangements of new experience will be frequently required. Our author does not pretend to give his authorities or his references, and though he accepts and adopts many classical descriptions of cases, yet for students he thinks it unnecessary to burden his book with foot-notes.

We quite accept this, and are inclined to welcome the digested material without for ever being told the source of the mental food. General reference is made to authors, and there is a list of them as well as a fair index. Considerable importance is attached to twelve pages of illustrations, which give types of insanity, microscopical sections, and maps of localization of functions, besides othœmatomata and pulse tracings.

The photographic reproductions are good, but not very numerous, and Dr. Kirchoff points out the real social and legal difficulties of reproducing likenesses of patients in their insane and in their sane moods.

The psychological basis of the work is Wundt, and it is interesting to see the turning in the tide of mental medicine. In the darker ages the metaphysical was the one basis for study of mind; then came the purely materialistic—one might say without materialistic knowledge, and now we come to materialism with some knowledge. In England men like Bevan Lewis and Mercier write from the evolutionary standpoint, and in Germany Kirchoff writes from the results of the psychical research laboratories.

We have not reached any very firm ground, but we are impressed with the vigorous cross-examining of brain and



mind which is going on. The book is divided into a general and a special part; only ten pages are occupied with the anatomical basis and seats of mental disorders.

The tables of causation of insanity follow, and are very similar to those adopted by Griesinger; thus we have general causes or conditions, such as civilization, sex, etc.; special causes, first bodily, such as meningitis, then mental, such as grief. The next part is full and interesting, and gives the symptoms of mental disorder, divided as to whether they affect the consciousness, perception, feeling, will, conduct, and bodily states; the course run by mental disorder, including general points of prognosis, comes next, to be followed by the investigation of our knowledge of mental disorder and its divisions; the principles of treatment are next considered. The history of psychiatry is placed at the end of the general division of the book, and is interesting, especially in reference to the reforms of the last one hundred years.

The second part contains the more clinical study and description of forms of insanity. It begins with a short chapter on classification, and there is little new or noteworthy here. Next are arranged the so-called simple disorders of mind, divided into melancholia, mania, periodic disorders, paranoia. In this last group we have several sub-divisions under the heads of "*Wahnsinn*," "*Verrücktheit*," and "*Verwirrtheit*," which may be translated by affective insanity, delusional insanity, and crankiness following other forms of mental disorders.

The next part includes the numerous forms of insanity depending on bodily and brain diseases. Dementia—primary, senile, and paralytic, is considered apart; then special forms of weak-mindedness, such as that depending on brain syphilis, metastasis, and general sclerosis.

Epileptic, hysterical, and neurasthenic disorders are considered, and one very special character of this book is the importance given to neurasthenia and its diagnosis. We have not space to enlarge on this point, or, in fact, on many which we have noted for reference, but we are sure that those of our readers who read German will find the volume of Dr. Kirchoff full of interest and of experience, and quite worthy of careful perusal.

*Hospitals and Asylums of the World: Their Origin, History, Construction, Management, and Legislation.* With Plans.  
By HENRY C. BURDETT, Esq. 4 Vols. London: J. A. Churchill, New Burlington Street. 1891.

The first volume contains the history and administration of asylums. The author gives a sketch of lunacy in ancient times, Pre-historic, Assyrian, Egyptian, Greek, and Roman, and also as it appears in sacred history.

As interesting a chapter as any is that which presents the period of demoniacal possession, witchcraft, and autos-da-Fé, namely, from A.D. 600 to 1750. It is a fearful history—a disgrace to animals supposed to be in the possession of reason and moral sense. These qualities are, however, useless if associated with ignorance. As the author observes: “No nation can claim exemption from the discredit due to the belief in demoniacal possession and witchcraft, and we are forced to conclude that these lamentable proceedings must be regarded as unimpeachable evidence of the views which pervaded every section of the people throughout the civilized world during many centuries.”

During the succeeding period, 1750 to 1850, Mr. Burdett traces the brutal treatment of the insane which prevailed, almost without exception, until the torch of humanity, borne aloft in Paris and at York, threw light upon the scene, and was gradually followed by practical reforms. Much information is given with regard to the early history of asylum treatment in many countries. The information collected with pains and trouble must be always of great use for purposes of reference.

“The present condition of lunatic asylums” is given in succeeding chapters. The asylum in Jersey is described, but the writer does not appear to be aware of the interesting circumstances connected with its origin.

Chapter VII. is especially valuable as giving an account of the lunatic asylums of India, as it is not easy to obtain information in regard to them. The particulars supplied with regard to lunacy in the colonies are also welcome, but the striking history of the condition of certain asylums in Canada, the exposure which took place in 1884, and the legislation which followed in consequence, are passed over in a few sentences which read very tamely. It seems to us that the mass of material contained in this work has the effect of almost obliterating salient points which might

have been brought out into relief with excellent effect. The very important landmarks in the history of the insane are in danger of being lost in the details, and there seems to require, at several epochs, a red letter mark, which is conspicuous by its absence.

A very useful chapter is the fourteenth, containing, as it does, a summary of the Lunacy Laws in Great Britain and Ireland, Austria, Belgium, Denmark, France, Germany, Italy, the Netherlands, Portugal, Russia, Spain, Sweden, Norway, Switzerland, and the United States. The information given in the last-mentioned country might have been advantageously fuller.

It is hardly necessary to say that the remaining chapter of this volume, devoted, as it is, to "asylum nursing and the training of attendants," does credit to Mr. Burdett, who is here thoroughly in his element.

The second of these volumes is devoted to "asylum construction, with plans and bibliography." A very large amount of labour has been expended upon this work. Mr. Burdett has left no means neglected in order to render it complete. It is and must continue to be a valuable work of reference.

Asylums are classified under four heads:—(1) The irregular or conglomerate; (2) The corridor; (3) The pavilion; (4) The corridor-pavilion.

The first class includes a number of asylums not intended for the object to which they are assigned, and, as a rule, they are not by any means well-suited for the purpose. Some were, at one time, ordinary workhouses. Mr. Burdett gives a very long list of conglomerate asylums in almost all countries.

The corridor type of asylum is familiar enough, and includes the greater number of county asylums in England and Wales.

Under pavilion asylums we have the general hospital type. The connecting corridors are disposed, for the most part, in four ways:—(a.) The linear form, the blocks being arranged on one or both sides of a perfectly straight line. (b.) The broad arrow form, in which the blocks project from a V-shaped corridor, the limbs being more extended than in the letter. (c.) The letter H form, the blocks being attached endways to the perpendicular parts of the letter. (d.) The crescentic or horse-shoe shape. The inconveniences of the pavilion type of asylums are pointed out by the author. The

advantages are not mentioned, and ought, we think, to be more fully considered. It should be borne in mind that, although the system of isolated pavilions is not adapted for some classes of patients, it may answer a good purpose for certain forms of insanity; and, at the same asylum, it may be desirable to have a combination of connected and disconnected pavilions.

The last division of type referred to, namely, the corridor-pavilion asylums, includes some asylums known to be of an excellent character, *e.g.*, the county asylums at Whittingham, Northampton, Hull, Derby, and the asylum at Norristown, Pennsylvania. The asylum construction in Scotland occupies a large space. That of France follows, and then Germany.

A very large portion of the book is taken up with the Report of the Committee of the London County Council on the proposed hospital for the insane, and, we think, a disproportionate part. Perhaps this was only fair, considering that Mr. Greene's paper, read before the Hospitals Association in 1890, on hospitals for the insane, is inserted at length, and evidently represents Mr. Burdett's own opinion. We therefore quote Mr. Greene's remarks:—"The above extracts are amply sufficient to show the estimation in which this extraordinary proposal is held by those best able to form an opinion on it, and I doubt whether it would be possible to find three English medical superintendents who have any real faith in the scheme. In fact, these hospitals are impossible in rural districts, and in large towns the difficulties in the way of construction would be almost insurmountable. A word as to clinical teaching in these new abodes of learning. . . . I assume there are about 800 senior medical students in London, and supposing that each student visited the hospital even once a week, it would mean that something like 130 students would be daily in the wards. I would ask those present, who are conversant with the treatment of insanity, whether it would be justifiable to subject cases of acute mania or acute melancholia to such an ordeal during six days of every week of their illness? There can be only one answer to this question. Some limit would have to be placed to the attendance of students, and I think it will have to be admitted that once more the hospital for recent cases would fail, at least partially, in its object. The consensus of opinion is almost wholly against it. It will be gathered that I have no faith in this hospital nostrum—this Morrison's Pill—for hastening the advent of the lunacy



millennium—I look upon it as one of those things which has not within it the elements of success, which has already been tried in other lands and has failed. . . . To properly try the experiment in the Metropolis, it would be essential to construct a hospital large enough to contain all the cases occurring within the Metropolitan area for six months. This would need a building, or buildings, large enough to hold 1,000 patients. An average residence of six months would enable a hospital to have 2,000 cases under treatment during the year; that is about the number admitted to the County of London Asylums. Nothing short of this would prove anything definite” (p. 257).

Mr. Greene advises those who agitate for the repetition of “a discredited experiment,” the name given to it by Dr. Urquhart, to endeavour to put down drink and other causes of insanity, and so prevent its occurrence.

His remedies for the defective knowledge of students and practitioners in regard to mental disorders are threefold. Students from the hospitals should visit regularly the asylums situated near London and large towns. There are very large asylums near the Metropolis, and the medical schools should have allotted to them one of these asylums, as may be most convenient. Secondly, students should be permitted to take three months’ asylum practice in lieu of the same amount of the hospital practice now required. Thirdly, clinical clerks should be more frequently appointed in asylums than is at present the case.

The work is enriched by a considerable number of plans of asylums. We should have expected to see one of Alt. Scherbitz, and to have had the increasingly-adopted principle of segregation, of which this asylum is the type, more prominently brought forward. In so large a work there must necessarily be some defects. Thus, having occasion to refer to the asylums in Norfolk, we examined the index, but failed to find them. In the list of illustrations we find “Plan of Norwich Lunatic Asylum, Hellesdon,” which is to be found at page 109, but we have been disappointed not to find any account of it, or, indeed, any further mention of its locality. At the end of this volume there is an asylum “bibliography,” which is of great use, and must have involved much labour. There are, however, some omissions—a fact which is not surprising.

The work will, no doubt, be added to all our public libraries, and we would fain say every asylum library, were

it not unfortunately true that very few asylums have a collection of books bearing on asylums or psychological medicine. It might have been supposed that if the small expense involved in such a collection ought not to be paid for out of the rates, some spirited member of the Asylum Committee would present it to the asylum.

Vols. III. and IV. have not yet been published.

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*Induction and Deduction.* By CONSTANCE C. W. NADEN.  
Edited by R. Lewins, M.D. Bickers and Son.

*Constance Naden: Further Reliques.* Bickers and Son.

*Constance Naden and Hylo-Idealism: A Critical Study.* By  
E. COBHAM BREWER, LL.D. Bickers and Son.

*A New Philosophy.*

It is a good deal to say of any philosophy that it is new, and though originality be not the chief question in weighing the merit of any system of human thought, it is, at least, in this sense important that it evidences, where it really exists, a rare amount of character and intellectual force, such as may well command the attention of the thoughtful student. That Miss Constance Naden, whose philosophical essays lie before us, was a woman of rare force of intellectual character, no one will deny. That she died untimely, before her work was well begun, is one of those sad incidents of the world's course which we can only regret. But whatever the ultimate value of her philosophical scheme may prove to be, it is well worth the student's while to pause for a moment and examine it with that interest which must always attach to fresh thought.

Her career is sufficiently remembered. The daughter of parents in a narrow way of life at Birmingham, she studied ultimately at Mason College, and advanced to attainments of no mean order in scientific work. She was a personal force in debating clubs and similar fields, and she wrote poems, which became somewhat famous because they attracted the praise of Mr. Gladstone in one of the first numbers of "The Speaker." Her health broke down after a visit to the East, just as she was taking up her life in London, and she died at the close of 1889.

Her main interest, as these volumes abundantly testify, was in the discovery and working out of a philosophical

scheme of the world of knowledge, which should combine for her mind the merits of the English and the Neokantian systems of thought, and avoid the difficulties of both. It is alleged in Dr. Dale's notice of his friend that the influence of Dr. Lewins upon her mind was a decisive factor in the formation of her system. Dr. Lewins, it is only fair to say, repudiates this theory; but it is not necessary to discuss the steps by which Miss Naden came to her belief. It is evident that she was much influenced at one time by Mr. Herbert Spencer, and that she was by no means unacquainted with the thought of the English Neokantian school, whose chief exponent was the late Professor T. H. Green. But when once the new scheme of the universe had laid hold upon her, she was delightfully dogmatic. "Hylo-Idealism: The Creed of the Coming Day," was her title for an article in "Our Corner," in which she expresses much scorn of all the orthodoxies and rejoices to think that the merit of the "new creed" is "its complete reversal of the theologic standpoint." Yet, after all, it must be confessed that her mastery of style is not what it might be, and that, for lucidity of statement, her essays leave much to be desired. The English philosopher seldom shines in his terminology. From Bacon and Locke until now, everyone has deemed it needful to invent a new diction, which comprises both new-coined words, by no means happily chosen, and old familiar phrases used in a sense whose logical precision and exactness is doubtful. It is not fair to judge Miss Naden by these essays, for she did not live to put her thoughts into any final form, such as she doubtless would have desired to be known by in another age. But the statement, as it stands, is often unsatisfactory enough: and against such terms as "asselfment," we would humbly, but energetically, protest.

The essence of the theory appears to be capable of being stated as an inverted variant of the teaching of Berkeley and Hume. To them Locke's theory of knowledge and his philosophy of "impressions" and "ideas" led straight on to the denial of any knowable matter outside and beyond our consciousness. Since Berkeley had to find a basis to assert the reality of the "outer world," he took refuge in the theory that God might well produce the conscious types, and that, as He would not deceive us, they must be substantially true. Hume, having no scruples, called himself, absurdly enough, a sceptic, and supposed himself to doubt

whether there were any reality corresponding to these "fictions of the mind" at all.

Miss Naden, on the other hand, is possessed by two currents of thought, which she conceives her theory to reconcile. She is very clear that to us there is no outside world—that every "thing" is a "think," as Dr. Lewins strangely states it—and that, in fact, each man makes his own universe. *Quot mentes, tot mundi*, is her motto. She even goes so far as to affirm, somewhat crudely, that the only creation and the only God are to be looked for in one's own cerebral hemispheres. But she is at the same time equally assured of the effective materiality of the universe. She is quite satisfied of the existence of other things and other beings, and she is prepared to reason about them, not only for intellectual, but for ethical purposes. She supposes, indeed, that the results of the sciences are frankly destructive of all theories of creation or causation which have to do with anything but matter. She takes it as obvious that life and consciousness are themselves only the upshot of "hylic" energies, working themselves out on Spencerian lines. It seems to us that this position involves the same paralogism which Mr. T. H. Green pointed out ten years ago, in his criticisms of Mr. Herbert Spencer. But the first question is, how did Miss Naden reconcile her two cardinal lines of thought? How, if the world is a vision—possibly a mirage or a drunken dream—how can I posit any difference between the real and the unreal, the true and the false? How, in a word, can I *know* anything about it? Are we not referred back to that "scepticism" of Hume, which, however absurd it be in effect, was the necessary outcome of the Lockian system, until Kant made it clear that it was the original misconception as to the nature of knowledge itself which was the *fons et origo mali*?

Like most English thinkers, Miss Naden, though she knew the Kantians, seems to have missed the fundamental import of their criticism on the English school, and we fancy they would apply to her assertions much the same polemic as that by which, in the view of many of us, they have destroyed the philosophic stability of the schools of Mill and Spencer. Miss Naden's answer to the difficulty seems to be a rough and ready sort of Cartesian argument. No man, she says, can be a sceptic about "hylic" reality without thereby affirming the possibility of argument, and he who affirms any argument, even a sceptical one, affirms



reason and certainty. "If we can show that *some* reality is presupposed by the sceptic, we have laid afresh the foundations of philosophy." So far the reasoning is sound, and is, in fact, our old friend, the *cogito ergo sum*, in a new dress. But Miss Naden now makes a *salto mortale*, as, indeed, did Descartes himself. Having compelled her Pyrrhonist to affirm the reality of his argument, she interprets that to mean "a course of reasoning in which every step is dependent on the preceding step, while the origin of the whole is some observed group of facts." Obviously, the last item, the observed "facts," is superadded without leave of the Pyrrhonist. So we are obliged, she goes on, "to assume the existence of some active basis of thought, that is, of something which thinks." So much as this the Pyrrhonist might possibly admit, but he would assuredly revolt at what follows. "What we assume of the individual self, we extend analogically to other men, *who are to us other selves*." This is a sudden plunge into a very ordinary and trivial realism; but there is a deeper plunge yet. "Having seen that sensation and motion follow upon excitation of the brain, and are suspended or destroyed by paralysis of the brain, we are justified in restoring our thought cells to their proud creative eminence, and in proclaiming that *they constitute* this 'active basis of thought,' that they think and, therefore, exist." To assume all that this simple-minded argument assumes, one must be already satisfied that the phenomena are real. If, for the sake of argument, you suppose that our cosmic panorama is unreal, that all I have seemed to see and hear, including laboratory experiments, is an interesting dream, in which my professors and my fellow students are merely ghosts in the dream themselves, then I *know* nothing whatever about the relation of sensations and thought-cells. I may amuse myself with fancying a correlation, but certitude or basis for action there is none. Besides, why should we extend "analogically" any fundamental reasoning at all. Analogy is nothing but a guess at best, and a confession of the scepticism against which it is invoked. But Miss Naden is not afraid to use it for a final bridge, by which to reach again the solid foothold of the common world. "From the material proplasm of consciousness," she goes calmly on, "we argue *by analogy* to a material proplasm of the objects of consciousness, and, therefore, to a *real world* which existed before man was and may exist when he is no more."

This is, to us, a very odd basis for philosophy. If she

were content with saying, as Dr. Brewer puts it, "that every individual is bounded by his own egoity," or as Dr. Lewins boldly says, "*L'Univers c'est moi*," then one could, at least, understand it. But such a theory is condemned to sterility. It rotates on its own axis, in the midst of an eternal void. Ethics cannot exist for it, since there are no others to be regarded, except the shadows of its own creating. Truth and error, reality and unreality, right and wrong, beauty and hideousness, are nothing but the fancies of the hour. If the universe that is the ego, or the ego that is the universe, should happen or choose to change the tastes of its "solipsismal" life, they will be changed, and no good nor harm will come of it. The believers in this creed may assert that they do not change. But if the ways of their dream-life be stable, that is their affair. Mine are very changeable, and I claim the right to have drunken dreams as well as sober ones, when the fit is on.

The truth is, surely, that the test and basis of the whole matter is what test of *reality* one's scheme of philosophy can provide. That our universe is made up of phenomena, all thinking persons will agree. That in some sense it is nevertheless real, is obvious to all who are not in a lunatic asylum, and to many who are. But the explanation of the meaning of that reality is the crux of the philosopher, as the discernment of it is often the test of the lunatic. We will not, here and now, pretend to solve the riddle, though we cannot see that the gifted and forceful girl whose books we have been considering has succeeded. In any case, she was a strong and interesting personality, and her essays contain many fresh and vigorous things which will repay perusal. They are not all concerned with the explanation of the fundamental notions of her system. She discusses the nature of religion and the evolution of the sense of beauty. She discourses on the principles of sociology and of evolutionary ethics, and she defends the Utilitarians against Mr W. S. Lilly. But all her arguments are, on the whole, less interesting than herself.

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*Psycho-Therapeutics or Treatment by Hypnotism and Suggestion.*  
By C. LLOYD TUCKEY, M.D. Third Edition, revised and enlarged. London: Baillière, Tindal, and Cox. 1891.

That a third edition of Dr. Tuckey's book should have been called for in less than three years shows that some little interest is being taken in England in treatment by

hypnotism and suggestion, and that the book should be so much revised and enlarged as it is in this third edition is evidence that the author is taking pains to keep abreast with the rapid growth of knowledge on the subject, and, further, it is a satisfactory sign to anyone who wishes to see the subject seriously treated, that Dr. Tuckey is now able to relate a good deal more personal experience of hypnotic treatment of disease; for, in the discussion of a method which has to some the appearance of being altogether fantastical or even absurd, it is important to be able to appeal to hard facts. "Hypnotism," Dr. Tuckey admits, "affords especial scope for quackery" (p. 281), and its honest use is still prejudiced no doubt in the eyes of the world, by the recollections of some charlatanism that has called itself by the same name, and some mysticism that has declined all reasonable investigation. He is anxious to disavow any claim that hypnotization is useful to all patients; he does not suppose that it can cure grave organic changes, or cut short acute pain, but he relates how he has "treated, during the last three years, about forty persons for drunkenness, and success has resulted from hypnotic suggestion in about half of these. Among the successful cases are certainly two of real dipsomania. In nearly all cases I have seen partial or temporary success, and in one instance—probably as bad a case as could be met with—the freedom from alcoholism lasted for eight months. I have never seen hypnotism weaken the character where it has been properly used, and in treating drunkenness it is interesting to note the almost invariable improvement in disposition which takes place under the influence of moral suggestions" (p. 175). In the case of a gentleman, in which more details are given (p. 267), we see the patient after a chronic state of dipsomania for more than three years, with fits of uncontrollable craving for spirits every two or three weeks, himself very susceptible to hypnotism, and hypnotized twice daily with the repeated suggestion that he should look on alcohol with dislike. This is a view he gradually adopts; his appetite improves, his good sleep returns, and after four weeks he has no inclination to taste alcohol. In another case (p. 271) of a man, æt. 37, who had been a heavy drinker for about ten years, it was thought desirable, and found possible, to establish by suggestion in a hypnotic state such a disgust for alcohol as to cause vomiting when it was taken in the normal state, although the patient



had then no recollection of the suggestion, and so to lead him to habits of abstinence. Dr. Tuckey is candid enough to report another case of a woman, æt. 40, a confirmed drunkard for seven or eight years, in which there was marked success at first, continuing during the two months that he treated her. But after this, when she was no longer under hypnotic treatment, she relapsed. More experience would have led him to insist on longer treatment. Still, the results of these forty cases are noteworthy when taken as a whole, and have a more reassuring look than the monotonous perfection of a patent medicine. The importance of hypnotism in alcoholism is strongly supported by the wide experience of van Renterghem and van Eeden, of Amsterdam, and also by Prof. Forel, of Zurich. It has been comparatively little tried in these cases by Bernheim, Charcot, or Pitres, though of morphinomania Bernheim records some good cures by its help. Dr. Tuckey has the decided cure by hypnotism of many of the lesser inconveniences or rather habitual discomforts of ill-health to report—headache, diarrhœa, constipation, insomnia, etc. But he has not the opportunity of showing what Bernheim has so well shown during the last ten years among some 15,000 patients at the Hôpital Civil at Nancy, viz., the great relief that hypnotic sleep may give in the advanced stages of chronic organic disease, when it may be almost the only method of refreshment to those who cannot take opiates. It requires special patience and determination to apply hypnotism to insanity, and Dr. Tuckey has not given up his time to following Auguste Voisin's lead in that direction. That something may be done in that province there is little doubt, but that it will require much time and tact and trouble is equally plain. Forel and Krafft-Ebing and W. von Speyr have done a little that confirms Auguste Voisin's conclusions, but Bernheim, Liébeault, Pitres, Wetterstrand, of Stockholm, and the other leaders in hypnotic practice have left the matter almost untouched.

A considerable part of the additions to this new edition consists of a discussion, or rather collection, of the physiological and pathological theories that have been invented to explain the phenomena of hypnotism. It is as well, perhaps, at some time or other to go over the many attempts that have been made in this most difficult field. The method of producing hypnotism which Braid used, viz., the keeping the eyes fixed on some near object, led up to the hypothesis



that the exhaustion of the eyes by a strain put on them, along with the mental conditions of expectant attention, was the key to the situation. But with wider experience it was found that the conditions of the induction of hypnotism were exceedingly various; there need not necessarily be any strain, any monotonous repetition of stimulation, anything, indeed, perhaps, beyond that its advent should be "suggested" and not opposed. And with this widening experience the physiological hypotheses of inhibition of the highest centres, etc., are growing inadequate as explanations, and in the convenient word "suggestion" itself there is no theory either of the origin or mechanism of hypnotism, for no physiologist can put forward as an explanatory theory that a certain state of body will be induced for the reason that he says it will be. In the psychical side of the matter Dr. Tuckey is a little apt to lose his way in words. "Psychical processes," he says, "such as auto or verbal suggestion, may be supposed to cause hypnosis by originating a nerve impulse starting from the ideational centres, composed of waves of such a character that they tend to cause interference with the waves of other currents traversing the inter-communicating fibres, and to alter the conditions under which, in the normal relationship, the centres stand towards one another, so as to affect consciousness and function" (p. 192). That hardly seems to us to leave the matter clear. But though the deeper parts of physiological psychology may be obscure to all of us, there can be no doubt that there is much sound and profitable knowledge of the possibilities in the practical treatment of disease to be gathered from the volume before us.

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*The Supernatural.* By LIONEL A. WEATHERLY, M.D. With Chapter on Oriental Magic, Spiritualism, and Theosophy. By J. N. MASKELYNE. Simpkin, Marshall, Hamilton, Kent, and Co. London, 1891.

The intention of this little book, the object of which is laudable, is to expose the folly of modern spiritualism. It is a feature of the present day that the remarkable phenomena of this class should be paralleled by equally astonishing phenomena produced by confessedly non-supernatural causes. Mr. Maskelyne has devoted his energies to this praiseworthy end. One is consequently reminded of the

rivalry between Moses and the Egyptian conjurers. There can be no doubt, it must be confessed, that a large number of persons not spiritualists feel keen disappointment when they witness the alleged explanations of so-called supernatural events. It is said that the conjurer requires for his success complex mechanical arrangements before he can effectually copy the remarkable performances which from time to time excite public interest. The conditions are stated by Lockhart Robertson to be altogether different. Mr. Maskelyne would not for a moment agree to this. Dr. Weatherly brings in array the various scientific reasons why there should be a large measure of apparent success, *i.e.*, not only from downright and interested trickery, but from the psychological laws brought into play under certain conditions.

With one exception the chapters are contributed by Dr. Weatherly. They include remarks on sense-deceptions generally, sleep and dreams, somnambulism, ghosts, phantasms of the living as well as the dead, telepathy, Joan of Arc, Shelley, Swedenborg, analogy between dreams and insanity, complicated hallucinations and illusions, and, lastly, sense deceptions, caused by fever and by drugs.

The subjects treated of by Mr. Maskelyne are Oriental jugglery, the basket trick, the mango tree and the burial trick; spiritualism, Davis, Home, the Davenport Brothers, Dr. Slade, Eglington, table-turning, spirit photography, theosophy, Madame Blavatsky, the Coulomb's confession, Mr. Hodgson's report, etc.

Since the first edition of this book was published there has been an additional chapter written in regard to the public performances of Miss Abbott. Any pretence to magnetism or psychic force as the cause of the phenomena is satisfactorily disposed of. Anyone who lays claim to the possession of occult powers while knowing well that there is another explanation must be regarded as a trickster. The explanation of a surprising performance, based as it is in the present instance upon certain mechanical laws, is by no means unimportant, and the remark has been not unnaturally made by the public that it is surprising Mr. Maskelyne himself should have waited until the advent of Miss Abbott before discoursing upon so interesting a power, and that so successful and attractive a performance had not been long ago exhibited in the Egyptian Hall.

*The Human Mind: A Text Book in Psychology.* By JAMES SULLY, M.A., LL.D. Longmans, Green, and Co., London. 1892. Two Vols.

*Handbook of Psychology: Feeling and Will.* By JAMES MARK BALDWIN, M.A., Ph.D., Professor in the University of Toronto; author of "Handbook of Psychology: Senses and Intellect." Macmillan and Co., London. 1891.

We draw attention to the publication of this work, and are glad to be able to congratulate the author on its completion. We must, however, postpone to a future issue a review of its pages. We can, however, in the meantime cordially commend Mr. Sully's Treatise to the readers of the "Journal of Mental Science."

With regard to Professor Baldwin's volume, it should be stated that it is the completion of and supplementary to the author's "Senses and Intellect." The aim of this publication would be best expressed in the writer's own words: "In method and scope my plan has remained the same. The treatment of this volume, however, is somewhat fuller; since I have wished to remove in some degree the reproach so often and so justly cast upon the general works in psychology that they give feeling and will, summary and inadequate discussion. . . . This volume, it may be said, puts to a better test the claim upon which the handbook is written, *i.e.*, the possibility of a psychology which is not a metaphysics nor even a philosophy. For the phenomena of the emotional and volitional life have not been worked over for purposes of philosophical system as an intellectual phenomena have; and for this reason, the psychologist has in this field greater freedom of treatment and a larger scientific opportunity. Hence—while not laying a claim to originality, which only the opinion of competent readers could make of any force—I feel that, apart from the general arrangement and division, certain chapters of this volume are more independent. In other words, the book not only aims to be useful for purposes of university instructions, but it may also be found, on some points, to make contributions to psychological discussions."

The work fulfils the expectations raised by Professor Baldwin's assured position, and by the promise contained in the passage we have quoted. We may have something to say in regard to it in our review of Mr. Sully's volumes.

*Die Conträre Sexualempfindung mit Benutzung amtlichen Materials.* Von Dr. MED. ALBERT MOLL, in Berlin. Fischer's "Medicinische Buchhandlung." Berlin. 1891.

The author of this work has already won his spurs in medical literature. His style is singularly lucid, and he is careful in his statements of facts. The work before us is no exception to his habit of writing and thought, and if the subject required further consideration and publication than it had already received, it could not have fallen into better hands than those of Dr. Moll. Dr. Krafft-Ebing, whose work on the same distasteful subject has been reviewed in this Journal, has acted the part of a foster-parent in writing a commendatory preface.

We do not propose to analyze this book, as we consider that those who find it their duty to study the subject of which it treats would do better to go to the fountain head than to take the facts at second hand from a review.

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*Éloge de Achille Foville.* Lu à la Séance Publique Annual de la Société Médico-Psychologique, du 27 April, 1891. Par Le Dr. ANT. RITTI, Secrétaire Général de la Société. Médecin de la Maison Nationale de Charenton. Paris: G. Masson. 1891.

Our appreciation of the subject of this *Éloge* is shown by the tribute paid to his memory in the obituary notice of this lamented alienist. We are glad to welcome M. Ritti's eloquent address. The loss of Foville, in the prime of intellectual life, was an irreparable loss to psychological medicine. Exceptional, no doubt it is, for father and son to be eminently distinguished in mental power and activity, but we witness this concurrence in the cases of M. Foville *père et fils*.

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## PART III.—PSYCHOLOGICAL RETROSPECT.

### 1. *English Retrospect.*

#### *Asylum Reports for 1890.*

(*Concluded from p. 143.*)

*Bedford, Hertford, and Huntingdon.*—This asylum is overcrowded, and the Visitors are convinced that increased accommodation must be provided for pauper patients. How this should be done has not yet been decided.

Difficulty is still experienced in readily obtaining suitable men as attendants. The Commissioners point out the advisability of extending exercise beyond the airing courts to all patients physically capable of enjoying it.

*Broadmoor (1890).*—A severe epidemic of influenza occurred, an account of which has appeared in the "*Lancet*." The cases were on the whole simple in their character, and free from complication.

During the height of the epidemic the resources of the asylum were taxed to their utmost, as 25 out of 84 male attendants were off duty at one time.

*Durham.*—Two acres have been set aside for the formation of a cemetery for the burial of patients dying in the asylum, and of officers and servants belonging thereto.

A Roman Catholic priest has been appointed to attend to patients of that religion at a salary of £40 a year.

Concerning diseases of the lungs, Dr. Smith remarks:—

Diseases of the lungs, a largely preventable class of diseases, amount to 39 per cent., 45 per cent. of this number being due to phthisis, 44 per cent. to pneumonia and congestion of the lungs, and the remaining 11 per cent. to bronchitis. This is a very unsatisfactory state of matters. Although a number of patients are admitted at an early stage of phthisis, still there is an alarmingly large proportion of the disease found in patients who have for a long time been in the asylum, and who on their admission showed no traces of the disease. Where large numbers of people congregate in a house there is always a tendency towards lung disease, especially if the rooms are inadequately ventilated, or, what amounts to the same thing, if the rooms be over-crowded. Another factor in the production of lung disease is the abstraction of oxygen from the atmosphere, and the escape of poisonous products of combustion into the rooms owing to the use of coal gas as an illuminant. This I believe to be a much more frequent cause of lung disease than is usually thought. A still further cause of lung disease, and of phthisis in particular, is the absence of proper means of disinfecting the clothes and bedding of phthisical patients, but this latter is, together with a new laundry, receiving your attention; but the condition of the wards and their mode of lighting urgently require consideration.

Dr. Smith suggests as a short title for the new Lunacy Act:—

An Act to prevent the early treatment of the insane and to hamper all having the care of them.

*Fife and Kinross* (1891).—It has been decided to add a large hospital block to the buildings. The plans are so far advanced that it is hoped that building may be soon begun.

The method of utilizing the sewage is also to be rearranged.

*Hants.*—All private patients were removed from the asylum before the new Lunacy Act of 1890 came into operation. Dr. Worthington was of opinion that the printed notices required by that Act would be a fruitful source of discontent amongst the pauper inmates, who naturally would expect the same rights. As a matter of fact, paupers have the same privileges as regards their letters, but both classes seem to heed the notices no more than if they did not exist.

A third assistant medical officer has been appointed, and a billiard-room has been fitted up for the amusement of the officers.

Two severe cases of typhoid, one fatal, occurred, but the origin of the disease has not been discovered.

*Inverness.*—It has wisely been decided to improve the protection of the building from fire by carrying the partition walls above the slates. The building had a narrow escape from destruction by fire through hot ashes passing through a cracked hearthstone, and thus reaching the woodwork underneath.

Dr. Aitkin's report contains some useful information as to the increase of the asylum population. He finds that whilst the general population of the Inverness district has diminished during the last ten years, the number of patients sent to the asylum has increased, and that, as a rule, the increase has been greatest in the most isolated parishes.

*London (County of).*—The Asylums Committee report that during the year they have done much towards consolidating, improving, and making uniform various matters of asylum administration. They have dealt with the hours of work, the rates of pay and emoluments, and with the question of increased leave of absence, annual or otherwise, to the asylums' staffs. The appointment of 54 additional attendants, nurses, and servants has been necessitated by such increased leave. They have also fixed an uniform ordinary dietary scale for the patients and staff, and have discontinued beer as an article of dietary in all asylums. Details relating to these and many other subjects are to be found in the large volume published by the Committee.

The asylums having been brought under the ordinary incidence of rating by the 263rd section of the Lunacy Act, 1890, the question arose as to whether the payment of these rates should be met by the Council or by the Asylums Maintenance Rate, and a case was prepared and submitted to Mr. Meadows White, Q.C., for his opinion, and he having advised that the Council were liable, the Council adopted that view.

*London (County of). Banstead.*—Dr. Shaw reports that the increased amount of leave and the rise in wages has given much

satisfaction. A new operating-room has been built, and has proved of much service. There is now a very complete set of bacteriological apparatus, and a small laboratory is being prepared. It will almost exclusively be devoted to experiments in that direction. Dr. Shaw also states that the appointment of a pathologist has been very advantageous in many ways. The examinations are now much more thoroughly conducted and described.

The wards for the acute and infirm cases are overcrowded. Seventy-five of a total of 284 deaths were due to phthisis. It is suggested that the congregation of many persons in large wards may be partly responsible, and it is pointed out that wet-scrubbing of the floors must have an injurious effect. The water closets and drains are receiving attention.

*London (County of). Cane Hill.*—The enlargements of this asylum are making satisfactory progress.

Dr. Moody reports :—

The new scale of leave and pay for the attendants and nurses came into force on 1st April, and was received with considerable satisfaction. The extra leave necessitated the engagement of five additional nurses and five attendants. I do not find, however, any diminution in the changes that take place, and I am of opinion that no concessions, however liberal, will prevent this. Asylums are so numerous, and situations so easily procured, that servants often leave on the slightest possible pretext, no matter how much they are considered, or how much is done for their comfort and welfare.

*London (County of). Claybury.*—The Committee have resolved to introduce electric lighting. The estimated cost is £17,500. Gas would probably not cost as much, but it is considered that the superior advantages of electric lighting, viz., brilliancy and softness of light, great cleanliness, improvement in sanitation, and saving in the cost of decorating walls and ceilings are of paramount weight.

*London (County of). Colney Hatch.*—There is now only one medical superintendent of this huge asylum. Mr. Marshall having retired, Dr. Seward has been appointed to the sole charge. We do not consider this a step in the right direction. The experiment is to be tried at Hanwell also.

The number of assistant medical officers has been increased to six.

It may be useful to point out that the Visitors state :—

From the fact that the asylum is now fully assessed for the purposes of the sanitary and other local rates, the time has, we think, arrived when steps should be taken to call upon the local authority to deal with the asylum sewage, and we propose taking early action in the matter.

Hot water pipes are to be placed in all the wards not already provided with a heating apparatus.

The Chaplain reports an experiment which might with much benefit be adopted in all asylums. He says :—

By way of experiment on a few occasions one of the week-day afternoon services has been reserved for the attendance of some patients of a less orderly

class than those who usually attend the chapel. The behaviour of most would justify their participation in the ordinary services.

*London (County of). Hanwell.*—The buildings are to be further protected from fire at a cost of £3,000.

Mr. Richards reports that there was an increase in the number of depressed and acutely suicidal cases. It is satisfactory to learn that of late years there has been a marked decrease in the number of deaths due to pulmonary phthisis.

Concerning the change of diet he says :—

Beer has been removed from the dietary table with marked advantage to the patients, and an additional meal (supper) has been given to them in lieu of the discontinued stimulant. I cannot speak too highly of this addition to the dietary scale, as formerly the patients went from half-past five in the evening until eight o'clock the next morning—a period of 14½ hours—without food. This was far too long. Since the supper meal has been given at seven p.m. the patients have been less restless at night.

The suppers are varied, viz., bread and cheese, seed cake, bread and jam, and porridge on different nights, and with these half-a-pint of separated milk is given.

To all those who are employed half-a-pint of separated milk is given at the dinner meal. Taking the patients as a whole I am sure that their bodily condition has improved. Many of them are certainly much stouter than when they had the ordinary diet scale, which included beer. The addition of the evening meal has conduced, in some measure, to the improved condition noticed.

On the same subject Dr. Alexander says :—

In the month of April a very memorable alteration was made in the dietary of the patients. Alcoholics were then deposed from their prominent and long-established position in the dietary, and relegated exclusively to the domain of medicinal agents. I may say that this change has so far been followed by the happiest results, as evidenced by the notable increase of contentment and decrease of squabbles and bickerings amongst the patients. The benefits accruing from the change have been most marked in the case of the epileptics, whose infirmities of temper are much less apparent than they used to be, and whose liability to fits—in some cases—has become lessened. As to the effect that the disuse of alcohol as a part of the dietary may have on the general health of the asylum, a sufficient time has not yet elapsed to enable me to form a definite opinion ; but I do not apprehend that it will be anything but improved, having regard to the compensatory addition that was made to the dietary on the withdrawal of alcohol therefrom.

*Midlothian and Peebles.*—Dr. Mitchell reports :—

Several cases of erysipelas occurred last March in the north-east wing of the asylum, and there had been one or two others in the previous year. On searching for a possible explanation of this outbreak it was found that a water closet (abolished a good many years ago) had had its soil pipe led into a branch drain near the windows of the north-east wing, and that this pipe had never been disconnected and sealed. It contained a large quantity of foul matter, and it appears most probable that this was the cause of the epidemic. The defect was thoroughly remedied by our own workmen, and since then the general health of the inmates has remained good.

*Monmouth, Brecon, and Radnor.*—Four cottages for married attendants have been erected.

Dr. Glendinning reports that the new male infirmary wing



approaching completion will supply a want which had become urgent, and will afford additional accommodation for 55 patients.

*Montrose* (1891).—The electric light is spoken very favourably of, both when employed in the wards and in the recreation hall.

The nursing in the new hospital is under the special charge of the new matron, and is carried out by trained nurses. Dr. Howden reports that a female nurse has charge of the chief male sick-ward, and that so far as his short experience goes the arrangement is entirely satisfactory.

The accommodation for ladies has been much improved by the acquisition of a villa. It stands within its own grounds, and commands an extensive and beautiful view of the bay of Montrose.

*Portsmouth*.—The female department is overcrowded. Plans for an additional building are in preparation. The estimated cost is £1,200. In August seven female patients were attacked with typhoid fever. They were mild cases, and all recovered. The walk round the estate is in use. It measures nearly two miles in length, and is 16 feet wide. The Committee have provided and furnished a laboratory for scientific work.

*Somerset and Bath*.—The purchase of the site intended for the new asylum has not been completed, pending inquiries as to the sufficiency of the water supply.

In an unusually large proportion of cases the admissions presented acutely suicidal symptoms.

Two outbreaks of fire occurred during the year. One was caused by a match falling into some bee's-wax and turpentine in an attendant's store-room. The other was due to the overheating of a drying stove in the foul laundry.

*Staffordshire. Stafford*.—This asylum is overcrowded. The Commissioners suggest that another asylum should be provided, as the best and permanent escape from the evil.

*Staffordshire. Burntwood*.—A second assistant medical officer has been appointed. The asylum is overcrowded, and some important structural improvements are urgently needed. The infirmaries for the acutely sick in both divisions are unsatisfactory as to size and arrangement.

In his report, Dr. Spencer says:—

The treatment of the patients has been carried out on hospital lines, as far as such treatment was found to be applicable. Many, if not all, of the numerous therapeutic agents have had a trial, some with success, the majority with but little good result. Among sedatives sulphonal has frequently been of much service to us, especially in the treatment of recurrent mania, several of the female patients who are subject to this form of mental disorder appearing to derive much benefit from the exhibition of the drug.

In discussing the well-known proposal of the London County Council, Dr. Spencer clings to the present system of asylum management and treatment, at the same time admitting the possibility and the necessity for improvement in various directions,

*e.g.*, increased medical and nursing staffs, improved hospital accommodation for acute cases, etc.

*Stirling, etc.*—The whole of the asylum buildings have been overhauled by the new Committee, and many important structural improvements carried out. An abundant supply of good water has been introduced. The plumber work and sanitary apparatus have been reconstructed. The building has been more thoroughly protected from fire. A new and complete system of drainage has been adopted. The sewage is purified by means of the "International Sewage Purification Method." In the main buildings new bath-rooms, lavatories, and closets are being erected, and old ones refitted. The administrative block has been converted into a store, and a new administrative block erected. Finally, a new laundry and dairy are being built. To relieve overcrowding a hospital block is to be provided at once. Other minor improvements are mentioned by the Commissioners as having been carried out. Among these may be mentioned a room set apart for pathological research.

The case books appear to be kept with great care.

Each case is prefaced by a compendious schedule of particulars of great value; a photograph of each patient is inserted, and accurate details of examinations made with the best scientific appliances are added.

Dr. Macpherson writes strongly in favour of the creation of separate hospital blocks for new cases.

*Suffolk.*—Twelve deaths were due to dysenteric diarrhœa, one to enteric fever, and one to erysipelas. It is, under these circumstances, satisfactory to learn that a supply of wholesome water is shortly to be obtained for the institution. Much continues to be done to improve the character of the accommodation in this asylum, but it is evident that much is still untouched. The asylum being full, it has been determined to erect an infirmary block for each sex, each to contain 50 beds.

Mr. Eagar's report is of great interest, and treats of a variety of subjects, some relating to his own asylum, others being of general interest. He states:—

I have for years insisted that, with a better nursing system, very much might still be done to improve the condition of our patients; and that this can only be secured by paying higher wages, and by more liberal treatment generally, especially by very appreciably shortening the hours of duty. I am glad to see that at last a move is being made in this direction at several large asylums, with the view of securing and retaining such persons as nurses as may be depended upon for using that tact, gentleness, and forbearance which are so frequently demanded for the successful treatment of our cases.

In a note Mr. Eagar states that he has at last been able to arrange for the nurses in several of the wards to enjoy every alternate day the benefits of eight hours' duty only, eight hours' recreation, and eight hours' sleep. This has been done by the addition of one nurse to 76 patients.

The report includes some severe remarks upon the new Lunacy Act, and the auditing of asylum accounts under the Local Government Act of 1888.

*Sussex.*—Patients continue to accumulate. It has been necessary to board 50 women at another asylum. The nursing staff has been slightly increased.

Dr. Saunders reports that so much success has attended the setting apart of another observation dormitory on the female side, for quiet suicidal and epileptic patients, that a similar dormitory containing 25 beds has been opened on the male side. This, too, is much appreciated by the patients.

The Committee have adopted a scheme of rewards for merit and long service, and it is hoped that this will act as an inducement for attendants to remain in the service.

*Wilts.*—Under the direction of Mr. Rogers Field extensive alterations are being carried out in the drainage, etc.

In pursuance of Sec. 263 of the Lunacy Act, 1890, the asylum buildings, as well as the land, have been assessed to county, parochial, and other rates. The result of this is that, whereas formerly the Committee had to pay upon a rateable value of £225 15s., they have now to pay upon a rateable value of £2,356 3s. 2d. The Committee are advised that so much of the rates as are not assessed upon the land are payable by the county at large, and not out of the Maintenance Account. They have accordingly charged such rates paid during the past year against the Building and Repairs Fund Account, pending arrangements being made as to their liquidation by the County Council.

The following paragraph relating to dietary is from Mr. Bowes' report :—

A remark in the last report of the Commissioners in Lunacy, relative to the dietary of the patients, has been under the consideration of the Committee, and upon the suggestion of your medical superintendent a revised and improved dietary has been substituted for the former table, which was considered deficient. The old and new dietary tables are to be found in the appendix, and on comparing these tables it will be noticed that a more liberal supply of bread and meat in some form each day has been provided for, and there are now four full meat dinners every week. Another important alteration will be noticed in the omission of beer from the dietary table, and the substitution therefor of milk. No beer is now allowed to patients inside the building, but it is still granted to those who are actively employed out of doors. This arrangement is an incentive to active employment, and in this way, if in no other, will be beneficial to the patients. Those patients working inside the wards are given coffee in the morning, and tea in the afternoon. At the same time the dietary of the attendants and nurses was also revised and improved, and ale is no longer to be allowed to them, but each official has consented to accept a money allowance in lieu of the beer. It was expected the removal of beer from the patients' dietary might cause some discontent, but such happily has not been the case, but to the contrary, many expressions of gratitude on the change have been heard. The more liberal dietary will, of course, necessitate increased expenditure, but this to some extent will be counterbalanced by the saving in beer, which will amount to about £470 a year.

*Yorkshire, East Riding* (1889).—Some mild cases of typhoid fever occurred; but their origin could not be decidedly determined. Some sanitary defects were rectified.

*Yorkshire, North Riding*.—Additional accommodation is required for female patients. A new laundry is to be built.

*Yorkshire, West Riding. Menston*.—This large asylum is already filling up rapidly, and plans for its extension are in preparation, which, we trust, will provide for the entire separation of a certain number of the new blocks.

Dr. McDowall, who is to be congratulated on his successful administration, says:—

The great increase in the number of private patients shows how greatly accommodation for this class of case is required in public asylums. At present it is impossible to separate such cases from patients sent by the various Unions, and this in many instances, at least, is undoubtedly unfortunate, and acts prejudicially on the patients. A building with smaller rooms, and offering greater facilities for classification, would greatly facilitate the treatment of such cases, and would remove the greatest objection which the friends have to the existing arrangement. The cost of such a building would soon be covered by the profits arising from the reception of such patients. On more than one occasion applications have been made for the reception of cases at much higher rates than are at present charged, which have of a necessity been refused on account of the want of adequate accommodation.

This conclusion seems hardly warranted by the data mentioned in this paragraph.

*Yorkshire, West Riding. Wadsley*.—The structural improvements completed, or in progress, include dining and recreation rooms for the medical officers, a nurses' residence, and new pathological and photographic rooms.

Dr. Kay reports that the Outdoor Patients' Scheme has not been taken advantage of to the extent that was expected, though, when first introduced, several persons presented themselves for treatment. He believes that the distance of the asylum from the town has no doubt prevented several availing themselves of the advantages of the scheme.

Lectures have been given by the junior staff to the nurses and attendants.

*Yorkshire, West Riding. Wakefield*.—The following extracts from Dr. Bevan Lewis's report refer to subjects of much importance:—

Many asylum superintendents, and especially those who administer the large County and Borough Asylums in densely populated areas, must have felt painfully conscious at times of the helplessness presented by a certain section of the community, which comprised subjects of incipient mental disease, neither so bad as to demand asylum supervision, nor, on the other hand, able to afford the treatment and advice of those who are specially qualified to secure their relief. Personally, my experience taught me that the advice of the asylum superintendent had been sought for, in most cases, by those who were directly recommended to seek such aid by their own medical attendant. To the poorer classes, who could not afford the employment of skilled alienists, the asylum medical staff constituted their sole resource; and in full recognition of this fact,



the scheme of an out-patient department was inaugurated at Wakefield, and subsequently extended to the two kindred asylums at Wadsley and Menston. The objections to this departure, which were regarded as somewhat weighty, were mainly four, viz :—

(1) The natural antipathy to asylums, and the objectionable term "Lunatic Asylum," were regarded as inseparable barriers to the development of such a scheme.

(2) The risks of accepting such cases for treatment under home supervision were considered very grave for the medical officers of the asylum.

(3) The further burden imposed upon the medical staff, whose duties already were heavy, was another supposed objection to the scheme.

(4) There is the somewhat ungenerous insinuation that the principle was antagonistic to the interests of the profession at large, and might lead to such abuse as an out-patients' department is open to.

The past twelve months' experience has done much to explode these notions. The objectionable term "Lunatic Asylum" should certainly be replaced by "Asylum for Mental Diseases," or some such alternative designation; yet it cannot but be admitted that the system is taken full advantage of, and growing confidence in asylum outdoor treatment is conclusively manifested. Nor is the risk run by the medical officer so striking as to have led, during the year, to a single casualty, although the responsibility of a careful, judicious selection of the recipients of this relief is, I admit, a heavy one. It will not be gainsaid that the asylum medical officer is not the best judge as to the advisability of home treatment being tried in cases of incipient mental disease.

With respect to the over-burdening of the medical staff, I may add that on no single occasion have I heard any of my colleagues express the least dissent to the extra duties thus devolving upon them; it was, in fact, most cheering to see the readiness with which they met what was distinctly recognized as a public duty. It was but reasonable to suppose that the additional labour demanded of the medical staff by the new Lunacy Act rendered this question somewhat dubious; but at Wakefield, at least, an increase in the staff to meet such requirements of the Act was seen from the outset to be imperatively demanded, wholly apart from any consideration of the out-patients' scheme.

The addition of a fourth assistant medical officer, and the rearrangement of the duties reported below, rendered the out-patients' scheme practicable and consistent with the usual duties of the staff.

With respect to the last objection urged, it is particularly pleasing to be able to record here the entire absence of any friction, the generous and appreciative co-operation received in our work from the profession outside; and it may be added that a large proportion of out-door patients came here directly recommended by their former medical attendant.

In considering the operations of this scheme it should be borne in mind that the numbers availing themselves of such advice must, from the peculiar nature of the case, be small. In the first place, the class from which such subjects are drawn is a very limited one—those suffering from a special category of nervous diseases—in the next place, the class is still further limited by the careful selection of cases demanded, where all unnecessary risk is to be strongly deprecated; and a further restriction is imposed by the provision that all nervous diseases not immediately connected with, leading up to, or associated with mental derangement were to be strictly excluded from this department.

The actual results it would be somewhat premature to dwell upon, but the character of the cases presenting themselves for treatment may be gleaned from the following summary :—Melancholia (14 cases), chronic cerebral neurasthenia (5), epilepsy (12), hypochondriasis (3), mania (2), general paralysis, incipient (3), persistent insomnia (1), neuralgia, with mental depression (1), chronic cerebral atrophy (1), cerebral tumour (1), organic dementia (1), chorea (1), delusional insanity (1), hysterical mania (1), imbecility, with excitement (1), post-apoplectic neuralgia (1). Of the above 49 cases under treatment as many

as 35 were directly recommended by medical practitioners residing in the West Riding.

We shall be interested in knowing, when more statistics are forthcoming, the number of cases which recover as out-patients. We shall not be surprised if it is found that but few are cured at home, generally the worst locality for them, and that the chief advantage of this movement is to *provide a stepping stone to the asylum, where their chances of recovery will be greater*. It is a striking fact that 19 out of the 49 cases were presumably incurable. If the malady of the three incipient G.P.'s was arrested in its course, the advantage of the out-patients' scheme would be supported by precisely the kind of evidence we require, but which has yet to be brought forward.

The duties of the assistant medical officers have been re-arranged. The pathologist no longer devotes the whole of his time to laboratory work, but has charge of 350 patients. With the remarks of Dr. Lewis we cordially agree, for we are convinced that under the name of pathological research much time is wasted by men who have nothing to show as the evidence of real work. We may at the same time remark that now scientific work is the "cry" of the day, there is some risk that other work may be neglected. It is highly important that the junior medical staff should not neglect to devote a fair share of its leisure to the immediate interests of the patients.

*Perth District.*—It is reported that besides the ordinary work of the farm and garden, occupation for the male patients, of a useful and remunerative kind, has been obtained in road-making on a neighbouring estate. The Visiting Commissioner commends work of this kind, if judiciously managed, as tending to break down to some extent the separation of the patients from the life of the outer world.

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## 2. *German Retrospect.*

By W. W. IRELAND, M.D.

### *Histology of the Brain in the Lower Mammalia.*

Dr. S. Ramon Y. Cajal ("Neurologisches Centralblatt," Nr. 22, 1891) has examined the cortex of the brain of new-born animals, rabbits, cats, and mice, after Golgi's method. He has found that the superficial nerve fibres (Krause's layer) seldom arise from the processes of ascending axis cylinders coming from the deeply situated pyramidal cells, but are connected with the ganglion cells of the higher layers of the cortex. These cells are difficult to recognize in grown animals. They are polygonal or spindle-shaped. Ramon never saw the axis cylinder processes of the small pyramidal cells reach the white substance—they branched off till they disappeared—but he succeeded in tracing the fibres of

the corpus callosum into the axis cylinder processes of the larger and middle sized pyramidal cells, or into their branches.

*A Dog without a Brain.*

At the meeting of the South-West German Neurologists in Baden Baden on the 26th May, 1889 ("Archiv für Psychiatrie," xxi. Band, 2 Heft), Dr. Goltz gave a report of his observations on a dog from whom he had removed both hemispheres with the scissors. The animal survived the last operation fifty-one days, and died of pneumonia. From the preparation which was shown it appeared that the whole of the cerebrum had been removed, with the exception of two symmetrical small pieces of grey matter at the base belonging to the middle of the gyri hippocampi, and some brain substance between the optic tracts and the crura cerebri. The corpora striata were also gone. The optic thalami were much injured and softened on their lateral surfaces. The rest of the thalami was covered by what seemed to be the remains of the corpus callosum and fornix. The cornua ammonis were wanting on both sides. The corpora quadrigemina were found to be uninjured, but spread out and softened. The pons Varolii and medulla had not the same firmness as in a normal brain. The left pyramidal tract was much smaller than the right. The left brain had been removed 263 days before the animal died. The cerebellum was uninjured. It is questionable whether the remains of the gyri hippocampi had any physiological connection with the stump of the crura cerebri. On the whole one can fairly say that this dog for the last 51 days of its life possessed no brain at all. Nevertheless after this deprivation the animal did a number of things, for whose performance, according to the opinion of most physiologists, the cerebrum is absolutely indispensable. A few hours after the last operation the dog was not only able to stand and walk, but he raised himself upon his hind legs, and put his fore paws upon the edge of the chest in which he found himself. Though he was unable to eat or drink, he chewed the food which was put deep into his mouth. The alternations of sleep and waking succeeded one another as in a normal animal. Before the time of feeding he was always restless; when satiated with food he became quiet and fell asleep. He could be waked out of sleep through touching any part of his skin. He then opened his eyes and stretched himself like an animal awaking from sleep. If one put his legs in an inconvenient position, he immediately redressed it by a counter movement. He could whine, growl, bark and howl. He did not appear to be affected by sounds, and could not have any sense of smell, as the paths of conduction from the olfactory nerves had been cut.

*Changes in the Retina through the Action of Light.*

Dr. Noiszewski ("Centralblatt für Nervenheilkunde," Juni, 1891) examines the question of the nature of visual impressions.

The most notable portions of his paper are those in which he shows that certain chemical and physical changes have been observed in the retina to follow the action of light. Some hold that the decomposition of the purple matter in the retina is a process important to vision; others that this matter is only useful for the absorption of the long waves of the heat rays. He, Noiszewski, observes that the quantity of the purple in the retina stands in an inverse ratio to the quantity of light. For the perception of a visual image a smaller quantity of the purple is necessary to make an impression the greater the intensity of light. The purple is decomposed by the light, and accumulates in the retina in the dark.

It has, however, been proved by experiments on frogs that after the entire decomposition of the purple matter the power of vision still exists. When the optic nerve is cut in frogs and rabbits the reaction is acid, but if the animal be killed after being kept in the dark for forty-eight hours the reaction is neutral or alkaline. The grey substance of the brain and medulla has always an acid reaction; and the white substance of the brain has the same, though weaker. Sezerback has shown from studies in his own person that mental work is accompanied by a decomposition of matters in the brain containing phosphorus, from which phosphoric acid is produced, and phosphates appear in the urine. Kühne has made observations upon the chemical reactions of the retina after being exposed to light. The action of osmic acid on the bacillary layer is not always the same. There are patches which are unequally coloured, apparently because they are rich in cerebrin and the ends of the rods take on a different hue from those which lie near the choroid. He concludes that the cerebrin and lecithin in the retina are decomposed by the action of light into various fatty acids and phosphoric acid. Noiszewski considers this a proof that there is under the action of light a chemical decomposition in the inner matter of the rods or cones, which he calls an explosion. There is also a swelling of the peripheral ends of the rods, so that all interspaces disappear. This change in their physical aspect causes a different reflection. After the explosion the elastic neuro-keratine envelope of the rods and cones contracts, leaving a ring-form fold. He thinks that the force generated by the explosion conducted through the nerve fibres to the brain causes a corresponding explosion in the nerve cells, but this of course is purely hypothetical. He holds that single impressions are sent from each of the cones of the bacillary layer. According to Weber, the smallest angle in which two white streaks can be recognized as two is  $73''$ . Helmholtz could still distinguish two bodies at an angle of  $64''$ ; the space occupied by such an angle thrown upon the retina would be 0.00464 to 0.0055, but the breadth of the cones of the retina is according to Kölliker 0.0045 to 0.0055.



Here we have a proof that every cone of the macula lutea could give an especial impression distinct from another.

*Injury to Musical Capacity with Aphasia.*

Dr. L. v. Frankl-Hochwart (quoted in the "Neurologisches Centralblatt," Nr. 21, 1891) describes five cases in which observations were made upon the injury to the capacity for musical expression which accompanied aphasia. In the first case the aphasia was complete, and the patient seemed to have lost the capacity of understanding music; he could only hum the beginning of a few tunes. In the four other cases the patients retained the capacity of understanding words; and in three of these cases the power of speech was lost, and in the fourth, a woman, there was a great deficiency. None of these four patients could sing spontaneously. Of two of them who had previously been good musicians, one could not play any more, the other could only play a melody in part. When the titles of pieces of music were named, they said that they knew them, but they could not play them. Two patients could play from the music book, but they could not sing from it. In all the cases in which speech was lost the musical faculty had also suffered; nevertheless cases have been described by Finkelnburg, Bouilland, Oppenheim, and Limbeck, where there was aphasia without injury to the musical faculty. Some idiots who cannot speak can sing to a certain extent. There is no case on record where the capacity for musical expression alone was lost; but it is strange why in some cases it is retained, in others injured. The author concludes that in many people the capacity for speech and for musical expression must have centres in the brain lying near one another. Musical expression appears in the child about the same time as speech, and is often lost through disease at the same time. Musical expression should have a double innervation, for both the hands are generally used in instrumental music. According to Anton violinists play the melody mostly with the left hand, and the piano is played by both hands acting at once.

*Wry-Neck as a Cause of Deformity of the Skull.*

Dr. Hans Kurella ("Centralblatt für Nervenheilkunde," August, 1891) observes that, although much attention has been directed to the pressure of the growing brain upon the sutures in causing deformation of the cranium, there are few studies about the effect which the traction of the muscles have in modifying the form of the skull. The principal of these are the muscles of the jaw, the sterno-kleido-mastoid, and the trapezius. Dr. Kurella presents a case where torticollis seems to have led to asymmetry of the skull. The subject was a shoemaker, aged 46, drunken and brutal, and of low intelligence, who had several times been in prison for theft and assault. The head was bent downwards on the neck towards the left, the chin being turned to the right. This was owing to a fall which he received in infancy. The wry-

neck is said to have improved till he was twelve years of age. The right trapezius muscle was atrophied, so that one could feel the splenius capitis below, and the left half of the occipital was broader and stronger, though, on the whole, the left side of the skull was smaller than the right owing to the lesser size of the frontal region. The hard palate was asymmetrical, being broader and flatter on the left. The left auditory meatus of the ear was 20 millimètres lower than the right. Dr. Kurella considers this deformity owing to the continuous action of the left sternomastoid, trapezius, and splenius muscles, which pulled down the petrous portion of the temporal and broadened the arch of the occipital base on the left side. It is interesting that the asymmetry of the base of the cranium had also involved the palate. The fact that the shoemaker was a man of low intelligence might lead to the supposition that the asymmetry of the skull was congenital, but from the history of the case Dr. Kurella is disposed to think this explanation to be excluded.

Another case of asymmetry of the face and skull following wry-neck is described by Greffié in the "Montpellier Médical" (Band xv., 1890). A *résumé* is given in the "Centralblatt für Nervenheilkunde" (December, 1891).

The subject was a man of 20 years of age, who had been received into the hospital at Montpellier for some gastric disorder. The chin was pulled from the right, so that the ear of the left side approached the left clavicle. The left sterno-kleido-mastoid could be traced like a cord of the thickness of the little finger, from its origin from the mastoid process to the sternum. The clavicular portion of the muscle was not visible. The face was quite asymmetrical. The under jaw was deformed, shorter on the left ramus than on the right. The teeth of the under jaw were to the left of those of the upper row, and the left lower lip covered the upper one. The left orbit was wider than the right. The cranium was also asymmetrical, and there was a flattening of the left temple. The man had a cervico-dorsal curvature of the spine, otherwise he was strongly made. His intelligence was normal.

Greffié attributes the asymmetry to the traction of the sternomastoid muscle upon the mastoid process. He observes that the earlier the torticollis, the greater is the deformation of the skull and face. In a case described by Broca the asymmetry of the face was much less marked, but the contraction of the muscle had commenced when the patient was two years old, whereas Greffié's case began in early infancy, when the bones were less formed. On this account, when wry-neck occurs in a child, tenotomy should be had recourse to at once.

#### *Is General Paralysis Caused by Syphilis?*

Professor Binswanger, of Jena, gives a contribution to this vexed question ("Neurologisches Centralblatt," Nr. 20, 1891.)

He maintains that general paralysis is one of the distant consequences of the syphilitic poison affecting the nervous system. It is not to be confounded with the ordinary sequelæ of constitutional syphilis. He admits that there are cases of syphilitic infection which simulate general paralysis, and are curable by anti-syphilitic remedies, but these need not perplex us. He observes that fifty per cent. of the cases of real general paralysis can be proved to have had syphilis. These do not differ either in the symptoms or pathological lesions from the other fifty per cent., in which no such infection can be proved, and, indeed, in many of the general paralytics, who unquestionably have had syphilis, the usual specific lesions are wanting.

*Shortening of the Limbs from Inherited Syphilis.*

Dr. Albrecht Erlenmeyer ("Centralblatt für Nervenheilkunde," November, 1891) describes a combination of symptoms which he had met with in five patients. Three of them were boys aged 12, 15, and 16 years; two were girls from 15 to 16 years. All these five patients suffered from Jacksonian epilepsy, and it was found that the extremities affected by the convulsions were smaller than on the other side of the body. The arms were shorter by about three centimetres; the legs by about 2.2 centimetres. The differences in circumference reached as high as 2.5 centimetres in the upper part of the arm, and three centimetres around the thighs. The motility of these affected extremities was normal. There was neither paresis nor spastic condition, nor could any abnormality in the muscular reaction to the electric current be ascertained; but both the extremities were weaker than the sound ones on the opposite side. This was especially marked in the left arm of one patient. The feeling of contact was a little duller on the affected side, and there was a weakening of the sensation of the limbs and the sensation of the weight of bodies.

In the boy aged 16 there was hemi-atrophy of the tongue, ptosis, and a slight atrophy of the face on the same side on which the extremities were affected. In the girl of 15 there was a facial paralysis on the affected side. No other symptoms of disturbed nervous power were noticed. It was ascertained that the children had been affected during the first years of life with fever, after which the epileptic attack began. In one of these cases at least it seemed clear that this affection must have been meningitis and peri-encephalitis. Dr. Erlenmeyer attributes the deficient growth of the extremities to the deficient development of the corresponding centres in the brain. He does not think that atrophy on the brain could have at once been the cause of the deficient growth of the limbs and of the convulsions. Jacksonian epilepsy is generally caused by some irritation in the affected brain centres, by syphilitic growth, by a deposit of tubercle, or by a splinter of bone. Assuming, therefore, the existence of some exudation, Dr. Erlenmeyer treated his patients with large doses of

iodine salts, and in one case this was followed by favourable results. Both have their beginning in an inflammatory affection of the brain; in the severer form it comes to a sudden hemiplegia, and to epileptic convulsions in the paralyzed limbs, and then to arrested growth, while in the milder form the paralysis is never reached. Dr. Erlenmeyer thinks it likely that the ordinary form of cerebral paralysis in children is more often caused by congenital syphilis than is commonly supposed.

*On the Influence of Alcohol on the Organism of the Child.*

In the "Centralblatt für Nervenheilkunde," December, 1891, there is a review of a pamphlet bearing this title, published at Stuttgart. The author, Dr. R. Demme, observes that not only in the poorer classes of the population amongst whom he practises, alcohol, in the form of brandy, or beer, or wine, is given to children under the persuasion that it is nourishing, but this notion sometimes prevails amongst better educated classes. Often brandy is added to the milk. The evil effects of this are found to be dyspepsia and chronic catarrh, with acidity of the stomach. In an extreme case in which brandy was given in large doses to a boy of four years cirrhosis of the liver was observed. The general effect of an intoxicating draught upon a child is stupor, lasting from twelve to eighteen hours. Sometimes there are convulsions at the outset. Children who are made to drink spirits in some form are often stunted in growth. Among 27 children whose height was under the average their shortness could be traced in 19 cases to the use of alcohol, and three of them grew quickly when the alcohol was cut off. Dr. Demme compares 10 families who could be designated as drinkers and abstainers (Nicht-trinker). The first had 57 children, and of these 25 died in the first month, six were idiots, and five of dwarfish stature, five were epileptic, one boy fell ill of chorea, which in the end led to idiocy, and in five children there were hereditary diseases, hydrocephalus, hare-lip, club-foot. Only 17 per cent. of the children of drunkards were sound in mind and body during the first years of life. Of the 61 children of the abstainers 81 per cent. were normal. Only five of these 61 children died early, four were affected with curable affections of the nervous system, and two suffered from congenital deformities.

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3. *Retrospect of Criminal Anthropology.*

By HAVELOCK ELLIS.

*Il Tipo criminale e la Natura della Delinquenza.* By Prof. Enrico Ferri. ("Archivio di Psichiatria," Fasc. iii.-iv., 1891).

Prof. Ferri here discusses, in his accustomed broad and luminous method, the question of the criminal type and the nature of criminality. The article will be included in the forthcoming



edition of his great work, "Nuovi Orizzonti del Diritto," and as Ferri is the most philosophic member of the so-called "Italian school," his account of the matter is worth summarizing.

Topinard, he remarks, contests the accuracy of the word "type" in this connection, but, as Lombroso has replied, and as Topinard himself has written, if by the type we mean "an *ensemble* of distinctive characters," a kind of average which Gratiolet called "a synthetic impression," or, as Isidore St. Hilaire called it, "a kind of fixed point and common centre around which the various differences are so many deviations in opposite directions," in this clear and precise sense we may speak of a criminal type. As Broca, again, says, "the type is an *ensemble* of characters, but in relation to the group which it characterizes it is also the *ensemble* of the most marked feature and those which are most often repeated." Not every individual, therefore, presents a marked and complete type. There is no anthropometric type of criminal (and no one, so far as Ferri knows, has ever affirmed that there is), in the sense that anthropometric measurements would be sufficient to establish it. The anthropological criminal type results from an *ensemble* of organic characters, but among these the most decisive are the lines and the expression of the face. Abnormalities of structure and form in cranium and body are the complements of that central nucleus which is constituted by the physiognomy, in which certain features, in Ferri's experience, are especially characteristic—the eyes and the jaw. It is by these features that in marked cases Ferri has been able to distinguish murderers (of whom he has made a special and thorough study). Abnormalities of the cranium and skeleton generally are sufficient to distinguish examples of degeneration from the normal, but are not sufficient to distinguish the criminal from other degenerated persons.

The criminal type cannot be found in every group of criminals; it is naturally most common among congenital criminals, while among occasional criminals and criminals by passion, who stand at the opposite end, the anthropological type either does not exist or is found in very slight degree, because in these the crime is less largely determined by the biological factor, and more largely by the physical and social environment. Thus the results will be very different accordingly as we take 100 congenital criminals or 100 criminals of all kinds at random. Ferri demonstrated this by comparing a series of recidivist criminals with another series of non-recidivist criminals belonging to the same province. He considers that Lombroso's results would have been still more remarkable if he had classified his criminals. It has been objected by Dubuisson and Joly that if the murderer and the thief present distinct anthropological types how can a criminal begin with theft and end with murder? Should we not have to admit that he must change his face? This, replies Ferri, is to syllogise about

criminals without knowing them. It is not, as a rule, true that criminals begin with theft and end with murder. It is only true of a special group, the habitual criminals, and even among them it is the exception. There are two varieties of thieves: the simple thief, who will never commit murder if he can possibly avoid it, *i.e.*, will only kill in self-defence, and not in attack; and there is the sanguinary thief, who is truly a variety of murderer, probably by congenital tendency, as his instincts are frequently shown at a very early age. The criminal does not pass from the group of thieves to that of murderers, but already belongs to the latter before the crime is committed. To the objection of Tarde and Topinard, that criminal types are of a professional character, just as we have clerical, legal, etc., physiognomies, Ferri replies that this is to a large extent true, but that such influences cannot form a large lower jaw or a receding forehead; they cannot make a skull oxycephalic or microcephalic, or cause the disappearance of a vertebra. Ferri concludes the first part of his paper thus: "Not only in the case of criminals, but also of other professional or psychological groups of men, there exists in certain cases a bio-social type, in which either congenital or acquired characters prevail, accordingly as the individual is more or less disposed by his physico-psychical constitution to a given profession, or is determined to it by family and social conditions. But besides this there exists a purely biological or anthropological type of criminal in those cases in which the criminal tendencies are congenital or manifested in very early life, and are accompanied by anatomical, physiognomical, and psychical characters (complete moral insensibility, extraordinary improvidence) which cannot be regarded as the products of the environment and social conditions alone."

In turning to the question of criminality, Ferri tabulates the chief theories as under:—

*Crime is a phenomenon of*

BIOLOGICAL ABNORMALITY by	{	atavism	{ organic and psychic (Lombroso); psychic (Colajanni);
		pathology	{ neurotic (Dally, Minzloff, Maudsley, Virgilio); neurasthenic (Benedikt); epileptic (Lombroso);
	degeneration (Morel, Sergi, Féré, Zuccarelli);		
	defect of nutrition of central nervous system (Marro);		
SOCIAL ORIGIN by	{ moral abnormality (Despine, Garofalo).		
	{ economic influences (Turati, Battaglia);		
	{ defect of politico-social adaptation (Girardin, De Greef, Vaccaro);		
	{ complex social influences (Lacassagne, Tarde, Topinard).		

BIOLOGICO-PHYSCO-SOCIAL ORIGIN (Ferri).

In presenting this table, Ferri remarks that those writers who

offer theories of a biological character do not regard them as absolutely exclusive; they do not deny the influence of external physical and social conditions. Those, on the other hand, who regard crime as a social phenomenon do frequently deny the influence of biological conditions. Ferri then criticizes these various explanations of criminality, and concludes that while they are all partially true, none of them is sufficient and complete. None of them gives us the precise and fundamental reason why in certain individuals this or that condition of biological abnormality determines crime, while in others it determines insanity or suicide or mere organic and psychic inferiority. Congenital criminality (and in some degree occasional criminality), Ferri considers, is a specific biological abnormality, the nature of which is yet undetermined. The most precise and positive conception of criminality on the biological side is that of a "criminal neurosis," distinct from every other form, pathological, atavistic, degenerative or other. Criminality, therefore, is neither exclusively a biological phenomenon, nor exclusively the product of the physical and social environment; but every crime is always the resultant, partly of a special, permanent or transitory abnormality, congenital or acquired, partly the result of external circumstances (physical and social), the two classes of elements coinciding at a given time and place to determine the action of a given man.

*Un mattoide riformatore* ("Archivio di Psichiatria," 1891, Fasc. v.-vi.).

The study of the mattoid (or "crank") does not strictly come within the region of criminal anthropology. But mattoids are frequently mixed up in criminal affairs, sometimes as the principal agent (Guiteau is a notable example), and it is worth while to refer to the careful study made by Ardu of the mattoid Giuseppe Vall . . . , although he is not a criminal.

Vall . . . belongs to San Maurizio, is 44 years of age, and unmarried, parents healthy, without either nervous disease or alcoholism. He says that in childhood he had "inflammation of the spine," and from his 20th year he has suffered from headaches. At the age of 12, in church, he had a vision of St. Bernard, and religious ideas came to him with, later on, ideas of reform. He became a mason, and cautiously refrained from speaking of his socialistic ideas lest they should hinder him in obtaining work. But he has written a great number of what he calls "problems" on all sorts of social subjects.

He is of average height, bony and muscular development good, adipose development considerable, skin normal, partly bald (since age of 25), wrinkles on forehead, teeth normal. There is flattening of the occiput. Sensibility and motility normal on the whole, and the physical functions generally normal and vigorous. (It is

not necessary to reproduce the details of exact measurements given, as they reveal few abnormalities.)

His dress is that of an ordinary well-to-do workman. Physiognomy intelligent, eyes bright, and he talks sensibly. He is attached to religious observances and fond of reading, but especially fond of writing, and would like to be writing always. He carries with him an enormous portfolio of writings, and when asked respecting his ideas he at once begins to read one of the "problems" in which he has settled social questions. It is not easy to make him talk about these questions, he prefers to read his writings. His ideas are founded on the Gospel, and the main point is the triumph of the humble (*i.e.*, the workers) over the proud; these and some other phrases constantly recur in his writings. Ardu gives a summary of the chief doctrines, usually in Vall . . . 's own words.

In conclusion, Ardu remarks that Vall . . . is the type of the congenital mattoid. His graphomania is well marked, and he confesses that he sent 16 volumes to the last *Exposizione Operaia* at Turin. Characteristic also is the use of alliteration, the tendency to rhythm, the fondness for special words and phrases, and the use of symbols and allegorical figures. An important point which differentiates the mattoid from the man of genius is his inconclusiveness, and his constant return to the antique, well-shown in Vall . . . . It is a kind of atavistic record. While the man of genius is always ahead of his age, at the bottom of the mattoid's conceptions there is always some ancient and primitive idea. Another feature of the mattoid, as distinguished from the man of genius, is his ability in practical life. Outside the circle of what may be called his monomania he is an average man. Lombroso knows more than one mattoid who worthily occupies important posts. Like most mattoids, there are few physical abnormalities to be noted in Vall . . . . He is at once a typical and a rare example of the mattoid—rare because mattoids are usually the product of culture and a high degree of civilization.

*The Physiognomy of the Anarchists.* By Cesare Lombroso. ("Monist," April, 1891.)

Prof. Lombroso (who in the January number of the "Monist" had given under the title of "Psychiatry and Criminal Anthropology" a summary of recent investigations, which should be of great value to English readers) here deals with the physiognomy of anarchists from the point of view of criminal anthropology. The initiators of great political revolutions, he remarks (such as Mazzini, Garibaldi, Sophia Petrowskaia, Vera Sassulitch), very rarely show the degenerative characters of the "criminal type." In 321 Italian revolutionists he only found them in 0.57 per cent., *i.e.*, 2 per cent. less than it is found even among normal persons. So of the Nihilists, "who represent to us, even



psychologically, the Christian martyrs." But it is quite otherwise when we turn to regicides and "presidenticides," such as Fieschi, Guiteau, Nobiling; such men also as Marat and Carrier show the criminal type, which also frequently appears among communards and anarchists. Among the latter Lombroso finds the criminal type in 12 per cent., and the insane type in 10 per cent. Among Parisian anarchists he found the criminal type in 31 per cent.; in Turin anarchists in about the same proportion (as against 43 per cent. in ordinary Turin criminals). He examined the photographs of 43 of the Chicago anarchists, and found the criminal type in about 40 per cent. In Parsons and Neebe he found "a noble and truly genial physiognomy," Parsons resembling Bodio, the eminent Italian statistician. By this prevalence of the "criminal type" among anarchists, Prof. Lombroso explains that he does not mean that anarchists are criminals, but that they "possess the degenerative characters common to criminals and the insane." Lombroso's distinction in this paper between revolutionists and nihilists (as belonging to a high type of humanity), and regicides, presidenticides, and anarchists (as belonging to a low type) does not seem to be very clear or sound. Sophia Petrowskaia and Vera Sassulitch, whom he, no doubt rightly, places in the higher class, were regicides quite as much as revolutionists. On the other hand, the chief Chicago anarchists were pure revolutionists, personally the most peaceful of men, without desire for bloodshed. The only exception was Lingg, a mere youth (of whose physiognomy Lombroso gives a bad account), who had dabbled in the subject of explosives, and who was by no means on good terms with many of his fellow-anarchists. In the following number of the "Monist" Schwab, one of the Chicago anarchists in question (mentioned by Lombroso as having the face of a *savant* and student), writes from his prison, "A Convicted Anarchist's Reply to Prof. Lombroso." In this article Schwab, who writes in the gentlest and most temperate manner, points out some of the fallacies connected with judgments founded on physiognomy, and shows that much of the material on which Lombroso depended was of an unreliable character. Spies, "undoubtedly the most gifted of all the indicted anarchists," had a most intelligent appearance, with well-developed forehead. He was full of compassion for the poor and wretched, and was a man of manifold charities, but his intellectual activity, Schwab remarks, was excessive. "Many of his articles betrayed nervous over-excitement," and intellectual work had been forbidden him by his physician. Fielden, of whose physiognomy Lombroso gave a very bad account, was always regarded by his employers as "an honest man, and a harmless enthusiast of an amiable nature." And Judge Gary wrote that "there is in the nature and private character of the man a natural love of justice, an impatience at all undeserved suffering, an impulsive temper. He was an honest, industrious, and peaceable labouring man."

His speech in his own defence was regarded as a masterpiece. It is clear that these men at heart belong to Lombroso's class of revolutionaries. In the latest number of the "*Archivio di Psichiatria*" Lombroso thus refers to this article:—"The anarchist Schwab, from the prison to which he has been condemned for life, confutes my study on the physiognomy of anarchists with a serenity and delicacy scarcely to be found even in the most correct of law-abiding persons."

*The New School of Criminal Anthropology.* By Robert Fletcher, M.D. ("American Anthropologist," July, 1891).

Dr. Fletcher devoted the whole of his lengthy address on retiring from the Presidency of the American Anthropological Society to the development and present position of criminal anthropology. Dr. Fletcher does not appear to have made any original investigations, but he has an extensive acquaintance with the literature of the subject and deals especially with certain matters of detail, such as abnormalities of the ear. The address is an interesting proof of the attention which criminal anthropology is beginning to attract in America.

*Instinctive Criminality: Its True Character and Rational Treatment.*

By S. A. K. Strahan, M.D., Barrister-at-Law. London: Bale and Sons, 1891.

This is a reprint, with prefatory note and appendix, of the paper read by Dr. Strahan at the Cardiff meeting of the British Association, when it attracted considerable attention. Although it contains little that is fresh, it is well adapted for its purpose, and is an excellent popular statement in brief compass of the present condition of criminal anthropology. In the course of the paper Dr. Strahan effectively compares the special statistics shown in the reports of the Prison Commissioners with the general statistics of the country, whereby it appears that the criminal is about forty times more liable to become insane than the ordinary citizen; that suicide, in spite of all precautions, is about twenty-four times more commonly a cause of death in prisons than outside them; that the mortality from phthisis is five times more fatal among criminals than among the ordinary population, and that notwithstanding the excellent hygienic conditions of prisons the death-rate among the prison population is nearly 50 per cent. higher than among the general population at corresponding ages.

Dr. Strahan advocates the indeterminate sentence, and the establishment of "industrial penitentiaries managed on much the same lines as are our public asylums, namely, by a medical director acting under a committee of magistrates, or of the local County Council. The director would be responsible for the health and education of the inmates and the general management of the institution. In the place of the prison warders there would be a

staff of instructors, whose duty it would be to instruct the young and ignorant, and persuade the idle and indifferent to employ themselves. There would be a gymnasium, a library, a band, and a drill sergeant, and every effort would be made to occupy usefully every hour of the twenty-four not given up to sleep." This corresponds very closely with the system carried out by Mr. Brockway and Dr. Wey, at Elmira.

*Work Among the Fallen as seen in the Prison Cells.* By the Rev. G. P. Merrick, Chaplain of H.M. Prison, Millbank. London: Ward, Lock, and Co., 1891.

This pamphlet contains in a small space a large amount of statistical and other information of considerable interest to the student of psychological degeneration. It has been Mr. Merrick's habit to take shorthand notes of his cases, and he thus possesses a mass of information concerning considerably over one hundred thousand prostitutes. A portion of the information thus obtained he has condensed into this pamphlet. The offences for which the women were sent to prison (taking 14,110 cases) were 9,443 for drunkenness and disorderly conduct, 2,542 for robberies of various kinds, 1,607 for street quarrels with other women, etc. Nearly 11,000 of these were sent to prison owing directly or indirectly to excessive drinking; but Mr. Merrick has met with very few instances where for the sake of drink one prostitute has taken the life of another. He finds that not one prostitute in ten is able to dispense with a free resort to stimulants. During long depressions of trade admissions are, comparatively speaking, low; as trade improves the number of admissions of prostitutes to prison rises.

Of 3,106 cases in which the women had been married, 859 were widows, 476 had been driven from their homes by the brutality of their husbands, 443 had been sent away by their husbands for misconduct, 270 supported their husbands by prostitution, 187 lived with their husbands, carrying on prostitution clandestinely, while of the remainder most had been deserted. Among those who were married and had been mothers, 2,372 children were still living, 546 were dead. Among the illegitimate mothers, 1,593 children were living, 1,854 were dead. The rate of mortality among the legitimate children was thus about 23 per cent., among the illegitimate upwards of 116 per cent.

In regard to the age at which sexual intercourse began, it appears, when we take 14,563 cases, that in the majority (nearly 8,000) it began between the ages of 16 and 21, the maximum (1,417) being between the ages of 16 and 17. In 11 cases there was sexual intercourse before the age of 11; in 36 cases before the age of 12; in 62 before 13; in 104 before 14; in 358 before 15. At the other end of the table we find it did not take place until the age of 38 in 128 cases; 174 were between 39 and 49; and 1

was 50. As a rule, it appeared from the confessions of the women, that they had been usually induced to become prostitutes by other women rather than by men. "I discovered," Mr. Merrick remarks, "that the woman's special enemy was not so frequently a man, but a member of her own sex, and often the very woman herself." As to the motives which induced the women to take up a life of prostitution, Mr. Merrick finds that of 16,022 cases taken consecutively, 5,061 (nearly a third) voluntarily left their homes or situations to take up "a life of pleasure;" 3,363 pleaded poverty and necessity; 3,154 were seduced and drifted on to the streets; 2,808 were led away by other girls; 1,636 were betrayed under promise of marriage, and having lost their character felt that they had no alternative but prostitution. Thus the motive which is conventionally assumed to be most frequent is that which comes last in the list; and while 4,790 owed their resort to prostitution directly to men, 11,232 confessed other causes. Mr. Merrick notes that of 2,836 instances where women were betrayed by men, only 657 were laid to the charge of "gentlemen," and it was found that by "gentlemen" was usually meant somebody wearing other than the ordinary workman's clothes.

It is interesting to compare the motives here set down, as given by London prostitutes, with those assigned by Brussels prostitutes on official inscription. Between 1865 and 1884, 3,505 women were inscribed as prostitutes at Brussels. Of these, 1,523 gave poverty as a motive; 1,118 confessed that sexual passions were the cause; 420 put it down to bad company; 316 were disgusted with hard work and small pay; 101 had been abandoned by their lovers.

Testing the powers of some 14,615 prostitutes in reading, writing, and ciphering, Mr. Merrick found that 3,237 could neither read nor write; 2,293 were equal to the first standard; 3,104 to the second standard; 4,721 to the third; 1,260 to the fourth or higher standards. "In fully one-third of the cases the women were not sufficiently educated to be enabled to read a book so as to take in an idea from it." He finds that the average number of years which prostitutes live, after having adopted a "life on the streets," is about three years and six weeks. It is to be hoped that Mr. Merrick will be enabled to publish a more comprehensive monograph concerning a matter on which he is unquestionably one of the chief living authorities.

*Report of Elmira Reformatory for 1891.*

The reports of this remarkable institution seem to grow in interest every year. In this pleasantly got-up volume of some 140 pages, very few are unreadable, and there are some fifty illustrations from photographs, illustrating the various activities carried on in the prison. As last year, nearly the whole is the work of the inmates, *i.e.*, letterpress (except the formal reports),



photographs, process engravings, type-setting, press-work, and binding.

Every department of this many-sided institution is deserving of study, but the physical training department is that which has most interest for the psychologist. The results obtained are regarded as reasonably satisfactory, and the subjects are such as would otherwise be regarded as hopeless. During the two years the gymnasium and baths have been opened, 212 men have been selected for treatment for periods varying from six to eighteen months. The causes of selection included physical degeneration, mental dulness and inertia, general debility, masturbatic deterioration, venereal disease, physical grossness, rheumatism, etc. The ages varied from 16 to 30. In recapitulating the various types found in the class, the director of the department includes "the boy who knew neither the name of days nor months, and dated an epoch in his life from 'the time the snow went off the ground;' the girl-boy, effeminate in features and soft of voice, ignorant of the country and the State in which he lived; the youth not far removed from feeble-mindedness and with the embarrassed locomotion the mentally deficient so often have; the crank with peculiar notions of his own importance and inclined to disobey; the dullard in the school; the moral imbecile who lies and steals, and tortures whom he can, and sees no error in the acts that yield him what he wants; and the little tyrant who ruled a widowed mother with despotic sway and filched her hard-earned wages to minister to his factitious wants." An exhaustive system of measurements (similar to Dr. Sargent's) is in use and is applied every two months, in order to test the improvement under treatment, and photographs, in three positions—front, side, and rear—of each man are made on entering and leaving the class. "The anthropometric apparatus in use consist of scales, measuring-rods, breadth, stretch of arms and girth measures, caliper, spirometer, manometer, back, chest, and hand dynamometers, and parallel bars."

"From 200 measurements of men entering the class," we are told, "the gymnasium instructor has prepared an analytical drawing exhibiting the proportions of the average prisoner assigned for physical renovation. Upon comparing this with a similar scale-drawing representing the average of 15,000 students examined by the gymnasium directors of Yale, Amherst, and Cornell, it is found that the inmates of the reformatory exhibit marked deficiencies in most particulars. The mean man of the reformatory weighs 2·7 lbs. less, and is 17 millimetres shorter than the mean man of the colleges; the girth of his head is 11 millimetres, and the breadth of head 6 millimetres, or a quarter of an inch less. In all measurements exhibiting capacity and strength the college man makes the best showing by far. In those which may be said to represent grossness of breeding, the larger figures are on the

reformatory side of the columns. The reformatory composite has the larger waist, the larger wrist, and the larger foot. It must be borne in mind, in making comparisons, that the prisoners of the reformatory are selected for training most often because of physical defects, and of degeneracy resulting from lack of proper nourishment, while the college students who resort to the gymnasiums are usually in good health, are well nourished, and, in most cases, have had some previous training." Following are a few of the most important measurements of the two classes of men, in parallel columns:—

	Reformatory.	College.
Stature ... ..	1705 m.m.	1722 m.m.
Girth of head ... ..	559 "	570 "
Girth of chest, natural ... ..	855 "	877 "
" " full ... ..	898 "	924 "
Girth of waist ... ..	738 "	726 "
Girth of thigh ... ..	490 "	512 "
Girth of calf ... ..	336 "	352 "
Girth of upper arm ... ..	280 "	310 "
Girth of wrist ... ..	170 "	165 "
Breadth of head ... ..	148 "	154 "
Breadth of neck ... ..	110 "	107 "
Length of foot ... ..	265 "	258 "
Capacity of lungs ... ..	286 litres.	388 litres.
Strength of back ... ..	107·7 kilos.	136·7 kilos.
Strength of legs ... ..	143·2 "	167·6 "
Strength of arms ... ..	2 dips.	6 dips.
Strength of forearms ... ..	22·2 kilos.	39·5 kilos.

This year there is a full index to the "Year Book," as it is now called.

*Papers in Penology.* Second Series. New York State Reformatory. Elmira. 1891.

This little volume is published "for the purpose of providing those interested in prison reform, and the general public, with reliable data regarding current movements in modern penology." In the preface we are told that "this book, editorially and mechanically, is entirely the work of inmates of the reformatory. Its compiler is the editor of 'The Summary,' and the composition and press-work, the etching of the cover, and the binding were done by members of various trade classes under the direction of inmate instructors." The first paper is an excellent and temperately written account of the present condition of "The Prisons of Great Britain," by Jay S. Butler. This is followed by a brief but admirable paper by Prof. Collin, on "The Leading Principles of Modern Prison Science," in which he works out the modern conception of the prison as "a hospital for the remedial treatment of depraved bodies and diseased souls," and shows how, ultimately, all theories as to the object of criminal punishment are in harmony with "the proposition which is the corner-stone of modern prison science, that the object of punishment is the improvement of the

offender." This is followed by an essay on "The Philosophy of Crime and Punishment," by Dr. W. T. Harris. Then follows the paper on "Criminal Anthropology," by Dr. Hamilton D. Wey, to which I called attention in the Retrospect for last April. Then comes an interesting paper on "New York's Prison Laws," more especially the Fasset Law of 1889, which "is above the high-water mark of all previous legislation, on both sides the Atlantic, in the prominence it gives to reformation as an avowed object in the treatment of convicts." This law gives the courts a discretionary power of carrying out the indeterminate sentence—the foundation-stone of the scientific treatment of criminality. The volume concludes with papers on "Prison Labour Systems," and "The Elmira Reformatory of To-day." It is to be feared that many years must elapse before our convicts in this country are set to such excellent tasks as the editing and publishing of such volumes as this, or before any one of our huge prison establishments becomes, even in the slightest degree, such a centre of light on criminological matters as Elmira.

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#### 4. Therapeutic Retrospect.

By HARRINGTON SAINSBURY, M.D.

*Hydrochlorate of Hyoscine and its Employment among the Insane.*

By Drs. RAMADIER and SÉRIEUX. ("Bulletin Général de Thérapeutique," January 23, 1892.)

The salt employed in these investigations was obtained from Merck. The authors' statements are based upon a two years' administration of the drug at the Vaucluse Asylum. They first touch lightly upon the physiological action of the drug, laying special stress, however, upon the general paresis, most marked in the lower limbs, which follows a full dose of the salt. This general muscular relaxation includes, of course, the intraocular muscular relaxation, but it may also include a complete relaxation of the vocal cords, which is attended by more or less complete aphonia.

Next they enumerate the diseases mostly belonging to the spasmodic group, in which hydrochlorate of hyoscine has been employed, *e.g.*, asthma, whooping cough, chorea, etc. Then they proceed to discuss its use in mental disease. Mania, however produced, is the condition which indicates hyoscine, *e.g.*, simple mania, alcoholic delirium, epileptic delirium, mental excitement, following upon intense sensory impressions, the excitement observed in certain cases of melancholia, maniacal excitement of general paralysis, symptomatic febrile delirium. Hypodermic administration is the best. The dose should be tentative, and should begin with, say  $\frac{1}{300}$  grain or even  $\frac{1}{360}$ , if the patient be weakly.

According to the results obtained, this dosage will be continued for a few days, or an advance may be made to  $\frac{1}{150}$  grain or  $\frac{1}{120}$  grain. A certain amount of tolerance follows the continued use of the drug, but much less rapidly than in the case of morphia; the dose may then have to be advanced to  $\frac{1}{70}$ – $\frac{1}{60}$  grain, or to double this quantity. Salgo, of Buda-Pesth, has given as much as  $\frac{1}{25}$  grain (3 milligrammes).

The effects follow an injection in about 10-30 minutes; sometimes they delay longer. The patient, whose motor excitement has up to that moment been difficult to restrain, then begins to feel weak on his legs. He may stagger and complain of vertigo, and that he has been made tipsy. His voice becomes hoarse and may even quite fail him. He sinks into a chair, and, if he succeeds in rising, he falls back quite limp; he may then stretch himself out and go to sleep. The result is very striking.

Sleep, if it follow, and it is the exception for it to fail, is of variable duration; it generally lasts several hours and may do so right through the night if given late. If sleep do not occur, the patient is quiet. Like morphia, hyoscine sometimes causes nausea or even vomiting. Mydriasis is almost constant; diplopia may occur; the face may be congested.

The authors' point out that hyoscine is not to be regarded as a mode of treatment of mania, but as a palliative, enabling us to tide over certain crises of excitement which, through the loss of sleep entailed and the refusal of nourishment, threaten grave complications. They also have found it useful in the treatment of surgical complications, when the patients were wholly unmanageable. We might say that hyoscine, as they employ it, takes the place of the strait jacket.

What are the contra-indications? In general, cachectics and cardiac patients are ill-fitted to receive the drug, but, on the other hand, Mitchell Bruce has given it in cerebral and aortic disease, in double pneumonia, in albuminuria. The authors think it may be given safely to general paralytics. They hold with Kraepelin that delirium or *collapse*, sometimes witnessed as a sequence to the injection, depends on the presence of impurities. During two years' routine use at Vacluse on over two hundred patients, they have no accident to record, and they consider that, though calling for cautious use, hyoscine is a valuable sedative where other drugs fail, and that it is very preferable to hyoscyamine, which very commonly causes delirium.

M. Constantin Paul, commenting on this paper, refers to methods already at our disposal for combating cases of mental and motor excitement, *e.g.*, chloral hydrate, given by him in 90-grain dose as an enema and with good results; sulphonal, so much used of late, etc. He says, further, that, despite the unfavourable reports of the use of hyoscine by P. Nacke and Serger, that the general opinion bears out the value of hyoscine.



*Case of Hyoscine Poisoning.* By Dr. EMIL KORN, of Tapiau.  
("Therap. Monatsh.," December, 1891.)

The dose taken, probably with suicidal intent, was one centigramme of hydriodide of hyoscine (the doses usually exhibited vary between 0.0002 grms. and 0.003 grms.). The patient, besides suffering from thoracic disease, was melancholic and the subject of delusions of persecution. The effects of the dose were: Stupor, with stertorous breathing, flushed face, and dilated pupils. The action of the heart was not influenced. About  $\frac{1}{14}$  grain of apomorphia was exhibited subcutaneously, but without effect (on account of heart disease it was feared to give more), an ice bag was applied to the head, sinapisms to the calves of the legs, and black coffee administered by the mouth in teaspoonful doses. On awaking three hours after there was headache and dryness of the mouth. The next morning the patient was sufficiently recovered to leave his bed.

In spite, therefore, of alarming symptoms, we note here a speedy recovery after a dose exceeding the maximum by more than three times.

*On the Use of Duboisine Sulphate in the Treatment of Mental Affections.*

By Dr. MAX LEWALD, Liebenburg. ("Therap. Monatsh.," December, 1891.)

This author obtained good results from the hypodermic injection of 0.002 grms. (0.031 grains) of sulphate of duboisine in cases of mental excitement. The first symptom obtained is mydriasis, then the excitement quiets down (10-30 mins. later) and then sleep sets in. In 75 per cent. of 22 cases sleep was thus obtained; it lasted from 2-7 hours. Of other symptoms, there were noted before the occurrence of sleep, vertigo and lassitude, and, rarely, staggering, also thirst and dryness of the throat. In one case the injection was followed by extreme dilatation of the pupils, increased unrest, a pulse of 168, very small and hurried respirations, 35; there was marked redness of the face. The remedy is, therefore, not without danger, and the dose of 0.002 grms. is not to be exceeded.

Dr. Vladimir Preininger, of Prague, obtains essentially the same results with hypodermic injection of duboisine sulphate. He counsels that the dose should not exceed 0.002 grms. (about  $\frac{1}{35}$  grain), since doses even of 0.0025 and 0.003 grms. are frequently followed by toxic effects. In the dose of 0.002 grms. a sedative, hypnotic effect is almost always produced. Taken by the mouth, the effect of duboisine sulphate is much less than when injected hypodermically. The action is analogous to that of hyoscine.

Duboisine, of course, is regarded as identical with hyoscine and iso-meric with hyoscyamine and atropine. It is considerably more active than these two last. At present there seem to be no

special indications for duboisine in preference to hyoscine or an equivalent dose of hyoscyamine.

*Bromides.*—In the “*Annuaire de Thérapeutique*” (supplément au “*Bulletin Général*”), February 8, 1892, we find a tabular statement of the relative poisonous action of the bromides; a long list. Intravenous injections were made by Dr. Féré with one per cent. solutions. The animals experimented on were rabbits; the fatal dose was in each case recorded. His results place, as most poisonous, mercuric bibromide; bromide of cadmium follows next; arsenic and potassium bromides come next to each other at some distance on the list, though the arsenic salt ranks as about twice as poisonous as the potassium salt. Calcium, strontium, lithium, and sodium, in this order, finish the list. We are astonished with this relative placing of calcium and strontium, and also that barium is separated by a very long distance from strontium, but we should fully agree with the placing of sodium as least poisonous of all the salts of bromine (*Société de Biologie*). Bromides are so much used by alienists, that a really comparative list of the toxic values of the bromides would be most interesting. Can we accept this tabular statement as at all final? We doubt it.

*Treatment of Tetanus by Chloralhydrate in Combination with Bromide of Potassium.* By V. POULET, Plancherles Mines (“*Therap. Monatsh.*,” December, 1891).

Of the various methods of treatment of tetanus, the local method comes too late, and the eliminative by diaphoresis, etc., does not promise much. The most efficient mode of dealing with the developed malady appears to be by means adapted to strengthen the nervous system, or to render it insensitive to the action of the poison of tetanus. Of the many drugs suggested for this latter purpose, *e.g.*, hypodermic injections of morphia, atropine, cocaine (?), eserine, cannabis indica, etc., none is so reliable as the combined use of bromide of potassium and chloral, the patient whilst under this treatment being kept as absolutely quiet as possible in a darkened room, from which all noise is excluded (the ears of the patient should be plugged with cotton wool). Liquid, highly nutritious diet, must be administered at regular intervals, every four hours. As to the dose of chloral and bromide, Dr. Poulet saw excellent results in two very violent cases, in which during 12 days 93 grains of each drug were administered daily (*i.e.* 6.0 grammes pro die).

This treatment is in agreement with H. C. Wood's teaching, that the combined use of chloral and potassium bromide should constitute the basis of the treatment of tetanus. He advocates, however, a much freer use of the bromide, of which, he says, not less than half-an-ounce, 217 grains, should be given pro die. It is interesting to note that the means of combating the excitement or

instability of the lower centres in tetanus are those most effectual in the treatment of a similar instability of the cortical cells in mania. For in this latter disease is there any combination of drugs more generally successful than bromide and chloral? In convulsions of cortical origin (epileptic), the bromides hold the field, and in the more acute epileptiform seizures, constituting the status convulsivus, no drug acts more promptly and strikingly than chloral hydrate.

*Case of Sulphonal Poisoning* ("Therap. Monatsh.," December, 1891).

The report is from Hungary, the case, that of a man of 54, a chronic dyspeptic, who, through recent business worries, had suffered much from sleeplessness. He was ordered a nightly dose of 30 grains of sulphonal, to be repeated in two hours if without effect. By the end of a week the patient had taken some nine or ten doses. His condition at that time included the following symptoms: Anorexia, nervous apprehension, vertigo, clonic spasm of the muscles, in particular of those of the trunk. The patient gave the impression of a dement; he was very restless, excited, and sleepless, his memory failed him, and he was very depressed. Mentally he was confused. During his interview with the doctor he suffered from repeated clonic spasmodic attacks, during which there was dyspnoea and great mental distress.

On cessation of the sulphonal, and treatment with chloral hydrate and suitable diet, the patient began at once to mend. He became more cheerful, and the spasms left him entirely. "Rational" treatment of the patient's primary trouble (the chronic dyspepsia?) is also mentioned, but what this was is not stated.

We should hardly have expected that chloral hydrate would help in such a case, but since the dose of this drug is not mentioned, we cannot judge whether the improvement is to be regarded as due to the sulphonal withdrawal rather than to the chloral exhibition. The interest in the toxic effects of sulphonal remains.

*Sulphonal Habit* ("Lancet," February 20, 1892).

It was maintained at one time, of course during the early days of sulphonal administration, that the drug did not establish a habit. How this might be, it was difficult to understand, for any substance exciting a desired effect upon the organism must, if habitually taken into the system, root itself in the affections of the taker. We should be more than human if this were not so. In a recent lecture given at the Congress of German Neurologists at Baden, June, 1891, Dr. Gilbert, of Baden Baden, describes two cases of habit, amounting to "a perfect mania," in which enforced abstinence gave rise to a series of symptoms similar to those witnessed in morphia abstinence. Two other cases were described in

which serious symptoms were present, as the result of the continued use of sulphonal. All four cases showed among their symptoms illegibility of handwriting; the patients could not write straight, and the characters were unsteady. Attention is drawn to the fact that sulphonal is very largely used in Germany, and that it can be obtained from the chemist without medical prescription. The same thing surely holds in England, where the tabloid system reigns supreme. What, indeed, can we not get in most acceptable and portable form! To such an extent have new drugs invaded the country, and established for themselves an uncontrolled sale, that we cannot be too thankful to those who will make plain the dangers of the practice.

Dr. Gilbert concludes with recommendations of how the drug should be taken if it must be given, viz., in solution in boiling water, poured on, and allowed to cool just sufficiently to be drinkable. Sleep will follow in some 15 to 20 minutes when this method is adopted. This mode of administration is already largely in vogue among us.

*Pental as an Anæsthetic.* By Prof. HOLLÄNDER, Halle A. S. ("Therap. Monatshefte," October, 1891, and January, 1892).

We make no apologies for introducing this substance into the "Journal of Mental Science," for the relation between hypnotics, narcotics, and anæsthetics is so close that they indeed form one large pharmacological group; they help us to abolish the functions of the cerebrum, whilst life, hanging on by the centres in the medulla oblongata, is still maintained. The whole theory of anæsthesia depends upon the less resistance of the higher cortical centres, the greater resistance of the lower centres in the medulla. The group of the anæsthetics proper, *e.g.*, chloroform, ether, laughing gas, etc., is separated from the group of the hypnotics, *e.g.*, chloral, sulphonal, paraldehyde, etc., etc., by such comparatively unimportant characters as speediness of effect, and speediness of disappearance of the effect; these have great practical, but little philosophical value. Moreover, the close relationship between hypnotics and anæsthetics is seen in the slight differences in chemical composition, which may exist between members of the two groups, *e.g.*, the hypnotic chloral hydrate, the anæsthetic chloroform. This point is further illustrated by the body under consideration, pental, another name for which is amylene, for this substance, as an anæsthetic, has a congener, amylene hydrate, which ranks as a hypnotic. Dr. Holländer, in his first contribution on pental, drew attention to the history of the discovery (in 1844) and the use of amylene,  $C^5H_{10}$  (in 1856-1857), as an anæsthetic. The reports were most eulogistic, then the drug practically disappeared, and we hear no more of it. Dr. Holländer presumes that there must have been difficulty in obtaining a uniform substance, and that for the



reason of uncertain action it fell into disuse, and he points out that a number of very closely allied bodies were formed in the old process of preparing amylene from amylic alcohol. The new substance sold as pental is simply amylene, but being prepared by the action of heat and acids on amylene hydrate, the result is a single quite pure substance. It is a clear liquid, of low specific gravity, highly volatile and inflammable, therefore, like ether, to be kept carefully from the proximity of any flame. Insoluble in water, it mixes freely in all proportions with alcohol, ether, and chloroform. It produces narcosis more quickly than chloroform, and is almost free from unpleasant after-effects; from bromide of ethyle it differs, by being somewhat more tardy in producing its effect, but on the other hand this effect lasts longer. Dr. Holländer points to its composition as a hydro-carbon, in explanation of its much less dangerous action than that of chloroform, the danger attaching, as some have taught, to the halogen, chlorine. No bad effect on heart or respiration was observed by him. The only drawback lies in the unpleasant, penetrating smell of pental, which resembles somewhat that of oil of mustard.

The further experience with pental, which the author reports in January of this year, fully confirms his original statements. He regards pental as one of the safest of anæsthetics, and one of the most certain; in these two respects he thinks that it does not only equal, but even surpasses nitrous oxide.

Dr. Holländer's experience is in tooth extractions, therefore, in short operations, but, as he points out, this is a most complete test of anæsthesia, and, inasmuch as the patient is operated on in the sitting posture, it is the best test of safety, so far as the heart is concerned, for the posture threatens syncope.

In the safety of pental, we find that it resembles amylene hydrate, for this produces its effect, hypnosis, whilst heart and respiration are practically unaffected.

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## PART IV.—NOTES AND NEWS.

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### MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

The Quarterly Meeting of this Association was held at Bethlem Hospital, London, on Thursday, Feb. 18, Dr. Whitcombe, President, in the chair.

Dr. EWART read a paper on "Epileptic Colonies" (see Original Articles).

The PRESIDENT, in inviting discussion on the paper, said he was sure that most superintendents of asylums would be delighted if they could get rid of the majority of their epileptics, among whom they found some of the most dangerous, as well as the most harmless, amongst their patients. There was much to be said for and against the system of keeping a particular class of patients together, especially in the case of epileptics. He was himself doubtful whether the fact of one patient having a fit would not be prejudicial to others, for it was

frequently the case that a patient having a fit sent other patients off into fits. He had felt that for some time amongst his epileptics. At the same time there could be no doubt that the weeding out of a large number of chronic cases out of asylums would enable superintendents to pay much more attention to their acute cases, and would, he thought, be profitable to acute cases in asylums. The separation of acute from chronic cases was one about which he felt very strongly, and he should be glad to hear it discussed.

Dr. SPENCE said the idea of a home or colony for epileptics who were not insane was a matter of very great importance, and one which had not been brought so prominently before them as it might be. He believed that the adoption of such a practice would not only be for the good of the patients themselves, but it would also be successful financially. They could scarcely ever take up a number of the "*British Medical Journal*" without seeing an inquiry of that description—whether anyone could recommend a home for an epileptic patient. He himself often met with inquiries as to anyone who would take in epileptics, not insane epileptics, but people who would be dangerous to themselves if not properly looked after. He hoped some practical result might arise from the discussion.

Dr. ROGERS said he had in his hands a medical report for 1890 of a home for epileptics at Moghull, near Liverpool. That report contained some remarks with reference to the effect of epileptics upon one another which bore rather upon the points raised in the paper. It said: "The advantages of the segregation of epileptics in suitable homes or colonies seem to us for this reason [that was that their companions were their equals] to be very great, and this opinion is formed, and distinctly formed, in the face of opposite opinions held not only by the public, but by many medical men—opposite opinions formed by non-epileptics of what their feelings would be were they shut up with epileptics, and not by the experience gained in suitable epileptic homes, of which there have hitherto been none in this country." That institute did not seem to be known to members of the Association. It was started two years ago, and was under the management of the medical officer connected with the local infirmary, the chief managing man being Dr. Alexander, of whom most of them had heard as having attempted various operations for epilepsy, such as ligaturing the cerebral artery, and one or two other things. So far as the institution had gone, with its very limited accommodation, it seemed to have been an entire success, so much so that the applications for admission were considerably in excess of the available accommodation. Dr. Ewart's paper was so discursive—it seemed to take in everything, and a good many other things besides—that he could not follow the whole of it. For instance, he proposed in this home to class epileptics who were insane and those who were not insane together. He (Dr. Rogers) thought that would damn the whole concern. In the first place, without a special Act of Parliament it could not legally be done; they could not set up a home of that sort for lunatics who happened to be epileptic. It would also tend very much to the disadvantage of those who were simply epileptics. The friends and others would not care to send their children or adult epileptics to be associated with lunatics of the most violent description. What was wanted—and this was a thing they were endeavouring to do in a joint association of the British Medical Association and the Charity Organization Society—was to form a home for epileptics who were not insane, and more particularly for training children where they would be free from the disadvantage of being associated with those already mentally unsound. The institution he had referred to was not entirely devoted to that object, but still the manner in which it had been started, and the success which had followed its operations, showed what might be done on a larger scale. Each institution should be distinct by itself. There should, first of all, be one for training children, and then one for those who had passed the age of education, but who might be trained in manual and other industrial employment.

Dr. RAYNER said he was very much interested in this subject, having some

few years back been in communication with the Charity Organization Society with regard to provision being made for non-insane epileptics. Nothing, however, had yet been done towards founding any such colony or shops as he then suggested. He certainly at that time abstained from recommending that insane epileptics should be treated in connection with those who were not insane. He quite agreed with Dr. Rogers that it would be very desirable to avoid in such a colony or institution having those who were obviously insane, so that he was afraid such a scheme would not really relieve the asylums of some of their most troublesome cases.

Dr. FLETCHER BEACH said the portion of Dr. Ewart's paper which referred to epileptic children dealt with a question which had occupied his (Dr. Beach's) mind for some considerable time. He read a paper with reference to it at the Congress. He considered it necessary, as Dr. Rogers and Dr. Rayner had said, that ordinary epileptics should be kept distinct from those who were insane. He was quite certain no father or mother would send an epileptic child to an institution which was known to take in the insane. There was always a certain amount of stigma attaching to insanity, and parents would send their children to a home where epileptics alone were admitted, but certainly not to one where epileptics and the insane were admitted. Dr. Ewart was undoubtedly right in saying that epileptic patients could be taught shoe-making, carpentering, and other trades, and so contribute towards their own maintenance. Dr. Rogers and himself were both members of the Charity Organization Society, which was going into the question of homes for the feeble-minded. They found there was an Act of Parliament which allowed the Guardians of different parishes to contribute towards the maintenance of the blind, deaf and dumb, and if that power could be extended so as to include epileptics some good would result. No doubt many epileptic patients did not require attention; they might be taught in day schools, and while many parents would no doubt object to send their children to a home where they were detained, they would not object to their being sent to a day school where they would be under a proper amount of supervision. Like Dr. Spence, he had often noticed in numbers of the "*British Medical Journal*" the inquiry: "Here is an epileptic child, what can we do with it?" He had also been asked if he knew of homes to which such children could be sent, and he had to reply with great regret that he knew of no such homes. Of course such homes would not be intended to touch the upper classes in society, they could provide very well for their own children, but he was quite sure that many a poor parent would be very glad to have a home to which he could send his epileptic child. Some time ago the Charity Organization Society had a scheme for providing workshops for epileptics. The question was gone into, but unfortunately there was not a sufficient public spirit evinced, and it was not carried out. He thought the question he had raised was worthy of consideration, namely, whether the Act of Parliament as now applied to the deaf and dumb could not also be extended to epileptics.

Dr. WALMESLEY said most medical men who had had any experience in this matter would know that there were a vast number of epileptics to be found in their workhouses. What he thought was that industrial centres should be established to which epileptics who were not insane might be sent and taught to carry on some useful trade. Such institutions should be for the epileptic sane, not the epileptic insane. He should be glad if that could be defined a little more clearly, because at present there was a little uncertainty as to whether the colonies recommended by Dr. Ewart should include both sane and insane.

Dr. SAVAGE said he did not know whether Dr. Rogers knew if the school started by Mr. Mould, some years ago, ever came to anything. He remembered that the house was beautifully arranged; everything was to be on the flat—there were to be no stairs. The bedrooms were all on one floor, opening by French windows on to the garden. It seemed from that point of view an ideal proposition, but whether it practically was a success he had never heard.



Dr. ROGERS said, though he had no authority for saying so, he believed that the home referred to had not been kept for the use for which it was first intended and started.

Dr. FLETCHER BEACH said that he had visited the institution referred to, and he was told that they had only two epileptics. The other patients were brought in from the main body of the asylum.

Dr. SHERRARD said, having had practical experience of cases not exactly epileptic, he should like to express his views as to the separation of the sane from the insane. One of the most certain facts they had to go on would be this, that if sane and insane epileptics were mixed together, it would be very difficult to get them in the same colony. His opinion was that sane epileptics should be separated, if possible, from the insane, and should be put to industrial work. Any plan, in his opinion, for keeping the two classes together would be impossible, and it would set people very much against the scheme. With reference to several epileptics, as to whom he had lately been consulted, he found it very difficult to make them feel that they were insane, or that they ought to be under control. He had one very remarkable case. It was that of a man occupying a very high position, who had been an epileptic for years, and it was an utter impossibility to make that man feel that he ought to be under control. If there was a home to which he could be sent, where he would see that he was not detained, but where, by remaining, he was benefiting himself, and where he could really do some good work, something beneficial might be effected. Dr. Ewart's paper brought forward such an admirable idea that it ought not to be allowed to stop where it was.

The PRESIDENT, in calling upon Dr. Ewart to reply, said the paper had brought a question to his mind which would probably be dealt with in a much more efficient manner if all classes of epileptics were together, and that was the question of the treatment of epilepsy. He had lately had several cases which, to all intents and purposes, had thoroughly recovered after a prolonged treatment during many years by drugs. He could call to mind three cases in which the epilepsy had entirely disappeared, and the mental condition was quite restored.

Dr. EWART said, having written to a gentleman connected with the Charity Organization Society, asking him if he knew of any such home as he had referred to in Great Britain, the reply was that he did not know of any epileptic colony in these islands. In reading up the literature of different epileptic colonies on the Continent and in America, he had always gathered that the non-insane, the insane, and the children were massed together. The great argument in favour of epileptic colonies was that no sooner one was started than two or three others invariably followed. They were found to be so beneficial that a great demand always arose for the accommodation they provided. The working out of the details he must leave to those who had greater knowledge of the practical working of asylums than he had. He had read the paper chiefly to obtain criticisms upon the project, so that if possible it might lead to some practical result. He was very much obliged to those gentlemen who criticized it so kindly.

The PRESIDENT said that a bedstead was on view in the passage, invented by the Ambulance Society, and a gentleman was in attendance to give any explanation that might be required. He would now ask Dr. HACK TUKE to read a paper sent by Dr. Jacobson, of Copenhagen, entitled "Relations between Syphilis and General Paralysis."

Dr. HACK TUKE said that Dr. Jacobson, of Copenhagen, was attached to the communal hospital in that city and to that department devoted to nervous and mental diseases. He was in England last summer, and was known to some members of the Association. He had written a work on general paralysis in the Danish language, which, perhaps, some members of the Association might be able to read. (See Original Articles.)

The PRESIDENT said the Association must recognize the great ability dis-



played in the paper which had been read by Dr. Tuke, under somewhat exceptional circumstances. That Dr. Jacobson should have taken the trouble to write this paper and send it to them showed a considerable amount of interest in the Association. He wished, in the name of the Association, to give a very hearty welcome to a specialist from Copenhagen, who was present with them at that meeting, Dr. Friis. They were always delighted to welcome specialists from the continent, or indeed from any part of the world. He thought it was only right that they should express their thanks to Dr. Jacobson for his able paper, and for his kindness in sending it to the Association. (Applause.)

Dr. SAVAGE said he should be glad to have the pleasure of seconding that vote of thanks. The subject was one to which he had paid a very great deal of attention. They always had to remember that if one had a hobby he was inclined to ride it rather hard. His hobby certainly was that syphilis was a very general factor in the production of general paralysis of the insane. In the paper which he read at the Washington Congress, he had dealt with the relationship of syphilis to insanity generally, of course extending far beyond the bounds that were included in the paper before them. The longer he lived the more he was impressed by the very marked relationship between syphilis and general paralysis of the insane. During the last five months he had seen 28 cases of general paralysis of the insane, and in those 28 there were 18 in which he had a distinct history of syphilis, and in most of those cases the whole history of syphilis, the length of time, and the general symptoms of the disease. In three other cases, although the fact of syphilis was almost certain, there was some doubt. There were five instances in which one could not approach the history at all—the patients were in a weak-minded condition and were brought by a wife or near relation, so that, of course, it was not practicable to get at facts. There were only two of the 28 cases in which such evidence was absolutely wanting. Amongst the 28 cases was that of a woman belonging to the upper middle classes, who had had some 12 or 13 children. On seeing her husband apart he said that seven years ago he had infected his wife with syphilis, so that the only woman with general paralysis who had come under his care during the last five or six months had undoubtedly had syphilis. Then, on the other hand, with regard to all those other cases that he had seen in consultation, there was one case in which there was a history of acute syphilis, influenza, and acute pneumonia, and in two other cases there was what they had been in the habit of calling syphilophobia, which was now called syphilidophobia. At all events, of the only cases which had come under his notice, of insanity, in which there was clear history of syphilis, two of them were suffering from melancholia, one from acute mania, and all the others were people suffering from general paralysis of the insane. It seemed to him that those were extremely important facts. Another point to be observed was whether there was any evidence that congenital or inherited syphilis might give rise to some of those odd cases of developmental general paralysis of the insane. He had seen at least one, he thought two, in which there was a history of congenital syphilis, and in which the patients had developed general paralysis of the insane when quite young. He believed there was one case of paralysis at this moment at Peckham House with a history of congenital syphilis, having all the symptoms thereof, and having general paralysis of the insane, the patient being a lad 20 or 21 years of age. Dr. Hack Tuke, in reading the paper, had referred to the relationship of syphilis to general paralysis, and of syphilis to locomotor ataxy. That, of course, was a very important question. The recognition of the syphilitic origin of nearly all cases of locomotor ataxy was well within the memory of most of them. He believed the great authority on locomotor ataxy, Dr. Gowers, would say, "Show me a case of locomotor ataxy, and I will show you a case of constitutional syphilis." The percentage among the unfortunate Russian Jews, quoted by Dr. Jacobson, showed that of the Jewish ataxics 87 per cent. had syphilis, and of the Jewish general paralytics 85 per cent. The conclusion to

which he arrived was that after all, whether general paralysis came from syphilis or not, it was about equally hopeless, and that led them to another point. He knew there were some members of the Association, and he believed his friend Dr. Newington was one of them, who considered that many confused cases of general paralysis were those suffering really from syphilitic degeneration of brain. He (Dr. Savage) was free to confess that a great number of cases of general paralysis of the insane due to syphilis did not run the so-called typical course, but he found that Griesinger, in his last edition, referred to the one characteristic criterion of all syphilitic brain cases, namely, their uncertainty, their instability, their tendency to remissions, to temporary cures, and the like. That seemed to him the exact characteristic of the majority of cases of general paralysis which he had seen, especially those depending on syphilis. He thoroughly believed that the great majority of cases of general paralysis did depend upon constitutional syphilis, but not all cases. Excesses of other kinds and injuries were quite capable of starting this degeneration. Some years ago they had in Bethlem two brothers, one who had been leading a perfectly steady life, while the other had led the life of a contrary character, one having had syphilis, the other not having had syphilis, yet both broke down at the age of 32, and died of general paralysis of the insane. There was another case in which there were twins, one dying of general paralysis in Scotland and the other in Bethlem. It was, of course, possible that they had both got syphilis, but it seemed much more likely that there was some special predisposition, causing them to break down.

Dr. RAYNER said it was very satisfactory to hear that there was such a very definite cause of insanity, because of late one had begun to fear that all causes had been submerged in one, and that influenza was the only cause of insanity. It was quite refreshing to be reminded that there was such a definite cause as syphilis. One must agree with Dr. Savage, with the writer of the paper, and with nearly everyone who had written on the subject of general paralysis, that syphilis entered very largely into its production, and constitutional syphilis was found to have existed in the history of an immense proportion of general paralytics. They would, most of them, agree with Dr. Savage in saying that there were a considerable number of cases in which there was no history of syphilis, and it would not be rational to accept the theory that the peculiar form of degeneration which was found in general paralysis could be the result of one pathological cause only. There could be little doubt that the pathological condition found in the brain might be reasonably expected to be brought about by such pathological causes as the continued abuse of alcohol, or the continued action of lead, or the great stress of sexual excesses, or mere loss of sleep, which he, no doubt, in common with others, had seen producing general paralysis. Whilst admitting that syphilis was a very large factor, and a very frequent substratum, in the causation of general paralysis, he certainly could not admit that was invariably *the* cause.

Dr. WEATHERLY said the author had mentioned that syphilis and general paralysis might be looked upon as the "Darkest Africa" in psychological medicine; and when they found, on the one hand, such an authority as Dr. Savage maintaining that something like 90 per cent. of general paralysis was caused by syphilis, and, on the other hand, one of the most eminent pathologists they had, Dr. Bevan Lewis, maintaining that it was very rarely due to syphilis, they certainly had not yet found a standpoint. One factor had been lost sight of, and that was a very important one. Anyone who had lived in this country, and exercised his perceptive and reasoning powers, or who had read that wonderful book of Buckle's, "The History of Civilization," must believe that their minds were guided to a very large extent by the wonderful law of average. Adopting that as a fact, could they not say that every man who had syphilis must be a man who had probably had connection with a good many women? Admitting that, they at once came to the conclusion that out of every hundred men who had had syphilis, the great probability would be that something like

90 per cent. would have indulged in sexual excess. Might they not say that, after all, a leading factor in the causation of general paralysis was not syphilis, simple and purely, but the sexual excess that lay at the back of it all?

Dr. BLANDFORD said, even supposing that all cases of general paralysis were caused by syphilis, one thing was very clear, namely, that all cases of general paralysis were treated as if they were due to syphilis, for he never saw any case of general paralysis that was not deluged with mercury and iodide of potassium, whether there was the very smallest trace of syphilis or not. He certainly had seen cases, not only of general paralysis, but other cases of insanity, where infinite mischief had been done to the patient by this treatment. No doubt there were some cases of general paralysis due to syphilis, but he believed that there were a very considerable number due to other causes, and where one could not clearly establish the impossibility of there having been any syphilis at all. Syphilis was not such an extremely common disease among the males of the upper classes of this country as was general paralysis. If a great number of cases of general paralysis were carefully investigated it would be found that the patients were absolutely devoid of any history of syphilis. With regard to the question of women, they knew that women were not attacked by general paralysis in anything like the same proportion as men, but surely syphilis existed amongst women, in a certain grade of society, almost as universally as it did among men. If they went to the Lock Hospital they would find women there treated by hundreds, but they did not find the same proportion of women becoming general paralytics. He had heard it said that there was a great immunity in Ireland from general paralysis, that in Irish asylums they found very few general paralytics. He should like to know whether syphilis was equally unknown in Ireland. These matters required to be very carefully gone into before it could be said that any great number of cases of general paralysis were due to syphilis.

Dr. RAYNER said that in his experience of the treatment of general paralysis from the syphilitic point of view, anti-syphilitic remedies, instead of doing good, had, he thought, done harm.

Dr. SEYMOUR TUKE spoke, but his remarks did not reach the reporter.

Dr. SPENCE said that in the cases which had come under his special notice he had been struck to find how little connection there seemed to be between insanity and syphilis. They very rarely got cases of syphilis in their asylums, and although he had inquired into the matter closely he got very little history of syphilis, but a good deal of general paralysis. He believed it was universally acknowledged that the virtue of an Irish woman was not to be questioned under any circumstances, and he was glad to hear that the virtue of Irish men was equally the same.

Dr. McDONALD said he could most fully endorse what Dr. Spence had said with regard to the connection between syphilis and general paralysis as coming under the observation of superintendents of county asylums. After thirteen years' experience of two asylums he was not sure that he could remember more than one or two cases where the connection between syphilis and general paralysis was fully borne out by the facts. The discussion had gone on the line of what could be observed in general and consulting practice rather than on what came under their eyes as superintendents of asylums. Of one thing he was quite certain, viz., that general paralysis was such a wide term that he was not at all sure that they were not including in it more than one disease. He believed there was a connection between syphilis and a certain form of general paralysis, and it was that class which perhaps had led Dr. Savage to form such a very firm opinion as he had done upon this question. At the same time, as Dr. Spence had said, there was another class of general paralytics where there seemed to be absolutely no connection whatever between it and syphilis. During the last nine years he had only in one case been able to trace syphilis as the cause of general paralysis.

Dr. BAKER said in large asylums it was very difficult to trace the history of a patient. In small hospitals it was much easier to do so. He had only been able



to trace four cases of general paralysis, and in only one of them was there the slightest suspicion of syphilis.

The PRESIDENT thought the question of locality, as far as general paralytics were concerned, had been left out of the question. The large towns supplied a large number of general paralytics, but general paralysis in some county asylums, and he believed in asylums in Ireland, was almost unknown. At Hull something like twenty per cent. of their admissions were general paralytics. At Birmingham about ten per cent. of his admissions were general paralytics, and he believed other large towns supplied general paralytics in somewhat similar proportions. He had been able to find traces of syphilis in very few of the large number of cases which he had seen. As a rule he attributed the cause to a general excess. He thought with Dr. Weatherly and Dr. Rayner that sexual excesses had a very great deal to do with a large amount of general paralysis, and also excesses from alcohol and other causes. It seemed to him that they had lost sight altogether of the locality from which general paralysis arose.

Dr. HACK TUKE said Dr. Jacobson would be very much gratified to hear of the manner in which his paper had been received by the Association, and of the valuable discussion which had followed it. Dr. Blandford's remarks called to his mind what was said by Dr. Bucknill a good many years ago. Speaking very sceptically as to any causal relation between syphilis and insanity in any form, including general paralysis, and saying that a very large number of people had syphilis and comparatively few had general paralysis, he went on to say if this were true they should go to the Lock Hospital to see cases of insanity, and that if they went there they would not find them. It certainly seemed to him that you must ascertain the proportion of syphilitic people who become general paralytics, as well as the number of general paralytics who have been previously syphilitic. Part of the value of Dr. Jacobson's paper was due to the recognition of this fact.

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#### SCOTTISH MEETING OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

A Quarterly Meeting was held in the Hall of the Faculty of Physicians and Surgeons, Glasgow, on Thursday, the 10th March, 1892. Dr. McDowall, of Morpeth, was called to the chair, and the following members were present:— Drs. Bruce, Campbell Clark, Gairdner, Ireland, Carlyle Johnstone, Oswald, and Urquhart (Secretary).

The minutes of the last meeting were read, approved, and signed by the Chairman.

The SECRETARY intimated a large number of apologies for absence, including one from Dr. Carswell, who was to have read a paper.

Dr. CAMPBELL CLARK reported that the authors of the "Handbook for Attendants" had met and considered the question of a new edition. He said that he would ask the meeting to homologate what they had done, because it would be within the recollection of members present that the book was altered to the satisfaction of, and approved by, a large committee representative of Scotland generally. He stated that, at a meeting of the authors, he had produced a letter from the publishers intimating the necessity for the immediate preparation of a new edition. Inasmuch as the Council purpose to deal with this question on the 19th May, and have expressed the hope that the Scottish members will then be represented, the authors resolved to waive their claims in respect of the handbook, to enable the Council to deal freely with the subject, provided that the authors remain on any editorial committee that may be formed.

The SECRETARY supported Dr. Campbell Clark's remarks, and briefly recapitulated the history of the book. He reminded members that Dr. Clark had read a paper on the "Special Training of Asylum Attendants," in Edinburgh at



the November meeting of 1883, and that the meeting then resolved to consider the question of training and the preparation of a manual. For that purpose a Committee of the officers of the asylums of Scotland was appointed. That Committee reported, in February, 1884, that a short manual should be prepared, and Drs. C. M. Campbell, Campbell Clark, Turnbull, and Urquhart were appointed for the purpose. In November of the same year the proof sheets were corrected by the whole Committee of Asylum Medical Officers in Scotland, and the book was published forthwith.

After some discussion, Dr. IRELAND moved that the meeting approve of the course adopted by the authors.

This was seconded by Dr. BRUCE, put to the meeting, and carried *nem. con.*

Dr. OSWALD then read his notes on certain German asylums, which will appear in our next number.

Dr. McDOWALL thanked Dr. Oswald for his interesting paper, and referred to the difficulty of instituting comparisons between asylums in different districts and different regions. He instanced his experience in Yorkshire and Northumberland with regard to pachymeningitis hamorrhagica. At Wakefield they might have two cases in one day, whereas in 18 years he could not remember one instance in Morpeth. He also asked why bedsores should be so frequent in some asylums compared with others. At the Hull Asylum, with a great proportion of general paralytics, very few occurred. This might be in great measure a question of nursing.

Dr. CAMPBELL CLARK, in replying to Dr. McDowall's remarks, stated that he had found the "red liquor" used in tanning an excellent preventative of bedsores. He further stated that he had found puerperal insanity more common in this country than abroad, in conformity with Dr. Oswald's statistics, and drew the attention of members to an observation that he had made respecting the colour of the eye in that malady. He had found few puerperal cases with grey or blue eyes—they were mostly brown. As to the statistics of general paralysis they were often vitiated by differences as to diagnosis.

Dr. IRELAND thought that a syphilitic case could be distinguished from a paralytic by the marks discoverable on minute and careful examination.

Dr. GAIRDNER said that he did not think that general paralysis in the advanced stages was common outside asylums. From time to time these did occur in hospital and private practice, and he had reported cases from time to time in the "Journal of Mental Science" and the "Glasgow Medical Journal." He referred to one case of exceptional interest in a man who had probably a rather shady history sexually. He had come complaining of aneurism, and settled down into deep hypochondriasis. He was of quite the opposite temperament to the cases of general paralysis usually described, and no assurance that he did not suffer from aneurism could make him desist from his repeated visits. One day he was a little shaky on his lower limbs, but presented no affection of speech or other symptoms of general paralysis. There was no suspicion of that malady during the months of his attendance in the consulting room. However, ultimately he was seen by Dr. Gairdner in Gartnavel in the last stage of the disease.

Dr. URQUHART briefly referred to the difficulties of diagnosis between general paralysis and syphilitic disease, and described shortly the Irrenklinik at Leipsic, as compared with the neighbouring asylum of Alt Scherbitz. He also condemned the practice of "preventing" bedsores by the prolonged warm bath or by wood wool. There was a difficulty in comparing foreign and home asylums in respect of the fundamental differences in the home life and surroundings. The standard of comfort was not the same. No doubt, as a general rule, the fewer the bedsores the better the nursing; but he doubted if they could be prevented in every case.

Dr. OSWALD then read notes on a case of wide-spread tubercular disease that had lately occurred in Gartnavel Asylum.

Dr. McDOWALL drew attention to the frequency with which septic inflammation of the bladder is set up in cases of spinal disease with retention of urine.

The members dined in the Bath Hotel after the meeting, in accordance with the usual custom of the Association.

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### RECORDS IN APPEAL.

*Thomas Lees, Inspector of Poor, North Berwick, against T. W. Kemp, Inspector of Poor, Haddington.*

The subject of dispute was one Michael Buchan, who was born in Haddington on the 26th August, 1867, a son of Peter Buchan, a farm labourer. This Peter Buchan resided in different parts of the county of East Lothian, but did not seem to have acquired a residential settlement in any parish of the county. On the 20th of November, 1885, Michael Buchan was sent to the Haddington District Lunatic Asylum, where he was detained for three months, at the end of which he was discharged without being certified as recovered. On the 18th June, 1889, application was made by his father to the Inspector of Poor of North Berwick to get Michael Buchan again admitted into Haddington Asylum, and shortly after application was made to relieve the parish of North Berwick, on the ground that the parish of legal settlement was the parish of Haddington, the place of his birth. This was disputed on the ground that Michael Buchan was a congenital idiot and unable to work or to maintain himself. The plea in law of the defenders was that the said Michael Buchan, being incapable of acquiring a new settlement, followed that of his father, who never had a residential settlement in Haddingtonshire. The question turned upon the degree of imbecility or weak-mindedness. It was an object with the pursuer based upon recent decisions, to show that the weak-mindedness of Michael Buchan was not of a decided character, and that he was capable of earning wages, and thus gaining a livelihood for himself. In that case they might hope to have a decision that the place of his birth was the place of his settlement. On the other hand it was an object of the defender to prove that Michael Buchan had been imbecile from birth. The young man's father stated that he appeared a bright, intelligent child until he was nine or ten months old, when he got a fall. He was then seen by the late Dr. Thomas Howden, Junior, who reported that the child's head was over big for his body. After this he was noticed to be imbecile. His father tried to teach him reading, writing, and counting with some little degree of success. He was never at any school save for about three weeks at Dirleton. He could do a few messages, such as buying small articles in shops, but never could be got to go through any regular work.

Three medical witnesses were called by the pursuers, and three by the defenders. Dr. Angus Mathison, practising at North Berwick, stated his belief that Michael Buchan was weak-minded, but he did not think that at any period of his life any medical man would have certified him as a congenital idiot. He was clearly of opinion that, under supervision, Michael could be taught to do some work.

Dr. J. B. Ronaldson, Medical Officer of the District Asylum, certified that Michael Buchan had been twice under his charge. He had been introduced into the asylum in a very filthy and neglected condition, suffering from insanity, superadded upon his general imbecility.

Dr. Ronaldson, as well as Dr. Mathison, considered that the early weakness might be owing to the accident which he met with when nine or ten months old. He thought that, if taught in early youth, Michael Buchan might have been taught to contribute partly to his own relief.

Dr. W. W. Ireland, proprietor of a Training School for Imbeciles at Preston Lodge, in the county, said that he had examined Michael Buchan at the Had-

dington Asylum. He found him of short stature, the head somewhat larger than usual. He found the palate high, but not so much so as to attach any importance to this. He found that Michael Buchan had 32 teeth; imbeciles have rarely more than 28. Dr. Ireland could not detect any of the usual marks of congenital idiocy. Michael Buchan could count up to thirty, could tell the time on the clock, could read a little, though he had scanty teaching. He wrote out the days of the week correctly, but put in two Sundays, one at the beginning, the other at the end. He might be taught to do country work under supervision, as much as would keep him. Dr. Ireland thought, recalling the observation of Dr. Thomas Howden, Junr., that it might be a case of imbecility from hydrocephalus about the ninth month.

The evidence of these three witnesses was supported by Mr. James Mowatt, Superintendent of the Haddington Asylum. Dr. Thomas Howden, of Haddington, was then called for the defender. He said that he had examined Michael Buchan. He found his head unusually large. He had heard the statement that until Michael Buchan was nine or ten months old he was a bright and alert child, but was still of opinion that he was a congenital idiot. He thought Michael Buchan incapable of making his own way, and that he would not be responsible for any illegal action.

Dr. Wm. Martine, of Haddington, was of opinion that Michael Buchan's imbecility might be congenital, though, when cross-examined, he acknowledged that the accident he met with in infancy might account for his condition. Dr. Martine observed at the same time he thought that, under supervision, Michael Buchan might do light work, but was of opinion that he could never earn his own livelihood.

The Sheriff-Substitute, having considered the cause, gave his opinion on the 26th June, 1891. He found that Michael Buchan had been, during his whole life, an idiot or imbecile, and that he had never been able to earn anything for his own support. He found, therefore, that the parish of his father's settlement is the parish bound to relieve the pursuer of the maintenance of Michael Buchan.

The Sheriff-Substitute, Mr. Charles J. Shirreff, added the following note explaining the grounds of his decision:—

"This is an action at the instance of the inspector of poor of the parish of North Berwick, for recovery of outlays in the maintenance of Michael Buchan, a lunatic, on the ground that Haddington, as the parish of the lunatic's birth, is liable for his maintenance.

"The lunatic was born in the parish of Haddington, on 26th August, 1867. He was residing with his father at Balgone Barns, in the parish of North Berwick, in June, 1889, when his father applied for parochial relief for him, and he was admitted to the Haddington District Asylum, where he still is.

"The lunatic has never been able for any work, so as to earn anything for his own support. He has been taught to read and write and count a little. He has a certain amount of intelligence. He can tell the hours on a clock, or go a message to a shop. The whole of the five medical witnesses concur in the opinion that he has never been able to earn his own livelihood, and is not now able to do so.

"He has resided in his father's family from his birth till he was removed to the asylum in June, 1889, excepting a period of three months from 25th November, 1885, when he was previously in the asylum (Defences, p. 2, sec. 2).

"Although he had attained the age of 22 years when he became chargeable to the parish of North Berwick, his father was still bound to support him. After he attained majority, he did nothing to break the ties that 'united him to the family circle.' He was, therefore, 'still a child of the house in the ordinary sense of that expression, a member of the family of which his father was the head, and consequently his settlement still depended on that of his father.' (*Fraser v. Robertson*, 6th June, 1867. Session Reports, Third Series, Vol. v., p. 819. Lord Justice Clerk's op., p. 823.)

"The only ground on which, in this action, the parish of Haddington is sought to be made liable for the maintenance of the lunatic is that Haddington is his own parish of birth. As the Sheriff-Substitute is humbly of opinion that the parish bound to support the lunatic is the parish of his father's settlement, the defender, as representing the parish of Haddington, is assolizied."

The pursuer appealed to the Second Division of the Court of Session, who, however, adhered to the judgment of the Sheriff, that the parish of Michael Buchan's settlement was the parish properly liable. We understand that this is in Ireland.

## THE APPROACHING CONGRESS OF CRIMINAL ANTHROPOLOGY.

The third International Congress of Criminal Anthropology will be held at Brussels, at the Palais des Académies, from the 7th to the 14th of August. The Belgian Government will give their co-operation, and the Minister of Justice (M. Le Jeune) is on the committee of organization. Dr. Semel, the best-known Belgian alienist, is the president of the committee. Papers will be read by Lombroso, Brouardel, Lacassagne, MM. Clémence Royer, Mendel, Magnan, Féré, Garnier, and other well-known alienists and anthropologists. The support of English alienists has not been invited, on account of the lamentable and discouraging abstention from the very successful Congress of 1889 at Paris, when delegates from nearly every civilized country in the world, except England, were present. It is needless to say, however, that the English will be warmly welcomed at Brussels, and it is to be hoped that some attempt will be made to remove the unfavourable impression produced at previous Congresses. The subscription entitling to membership and the publications of the Congress is 20 francs, and should be forwarded (as well as any other communication) to Dr. Semel, 11, Rue de la Loi, Brussels.

Among the papers to be read and discussed at the Congress may be mentioned:—"The morbid origin of the characters of congenital criminals" (Dr. Jelgersma), "The physical conditions of criminality" (Prof. Ferri), "The characters of criminality in women" (Prof. Lombroso), "Morbid criminal obsessions" (Dr. Magnan), "The obsession of murder" (Dr. Ladame), "Criminal suggestions and penal responsibility" (Drs. Benedikt, Voisin, and Bérillon), "The motive of crime in childhood and youth" (Dr. Motel), "The influence of professions on criminality" (Dr. Contagne), "The respective importance of the social and anthropological elements in the problem of penality" (Prof. Gauckler), "The applications of criminal anthropology" (Baron Garifoli, Prof. von Liszt, and Prof. Benedikt), "Sexual inversion and legislation" (Prof. Mendel), "The heredity of crime" (Prof. Manouvrier), "Suicide and insanity among criminals" (Dr. Semel), "The influence of simulation on real insanity" (Dr. Féré), "The necessity for the compulsory study of criminal anthropology by alienists and advocates" (Dr. Winckler).

## INTERNATIONAL CONGRESS OF EXPERIMENTAL PSYCHOLOGY.

### PROVISIONAL PROGRAMME.

London, October, 1891.

The second session of the above Congress will be held in London, on Tuesday, August 2nd, 1892, and the three following days, under the presidency of Professor H. Sidgwick.

Arrangements have already been made by which the main branches of contemporary psychological research will be represented.



Among those who have already promised to take part in the proceedings of the Congress may be named the following:—Professor Beaunis, Monsieur A. Binet, Professor Pierre Janet, Professor Th. Ribot, and Professor Richet, France; Professor Lombroso, Italy; Dr. Goldscheider, Dr. Hugo Münsterberg, Professor G. E. Muller, Professor W. Preyer, and Dr. Baron von Schrenk-Notzing, Germany; Professor Alfred Lehmann, Denmark; Professor N. Grote and Professor N. Lange, Russia; Dr. Donaldson, Professor W. James, and Professor Stanley Hall, United States of America; and Professor V. Horsley, Dr. Ch. Mercier, and Dr. G. J. Romanes, England. It is also hoped that Dr. A. Bain, Professor E. Hering, and others may be able to take part in the proceedings; and that some, as Professor W. Wundt, who will not be able to attend the Congress, may send papers.

As a specimen of the work that will be done, it may be said that Professor Beaunis will deal with "Psychological Questioning" (*Des questionnaires psychologiques*); Monsieur Binet, with some aspects of "The Psychology of Insects;" Dr. Donaldson, with "Laura Bridgman;" Professor Stanley Hall, with "Recent Researches in the Psychology of the Skin;" Professor Horsley, with "The Degree of Localization of Movements and Correlative Sensations;" Professor Pierre Janet, with "Loss of Volitional Power (*l'aboulie*);" Professor N. Lange, with "Some Experiments and Theories concerning the Association of Ideas;" Professor Lombroso, with "The Sensibility of Women, Normal, Insane, and Criminal;" Dr. Münsterberg, with "Complex Feelings of Pleasure and Pain;" and Professor Richet, with "The Future of Psychology."

A Committee of Reception has been formed, which includes, among others, the following names:—Dr. A. Bain, Dr. D. Ferrier, Mr. F. Galton, Dr. Shadworth Hodgson, Professor V. Horsley, Dr. Hughlings Jackson, Dr. Chas. Mercier, Professor Croom Robertson, Dr. G. J. Romanes, Mr. Herbert Spencer, Mr. G. F. Stout, Dr. J. Ward, and Dr. de Watteville.

The attendance fee at the Congress is ten shillings. Arrangements will be made for the accommodation of foreign members of the Congress at a moderate expense.

Communications are invited, which should be sent to one of the undersigned Honorary Secretaries not later than the end of June, and as much earlier than that date as possible. The communication should be accompanied by a *précis* of its contents for the use of members.

F. W. H. MYERS,

Leckhampton House,  
Cambridge.

JAMES SULLY,

East Heath Road, Hampstead,  
London, N. W.

### Correspondence.

*To the Editors of "THE JOURNAL OF MENTAL SCIENCE."*

GENTLEMEN,—Allow me to draw your attention to a mistake which exists in the answer of Dr. Robert Jones to Professor Kojewhikoff, published in the 'Journal of Mental Science,' January, 1891, p. 204. Dr. R. Jones asserts having received his information about the clinique from Dr. Korsakoff; this could not at all have been the case, as I had not the pleasure of seeing Dr. Jones during his stay in Moscow, being myself at that time in Switzerland, on my return home from the Congrès de Médecine Mentale, in Paris.

I have the honour to remain

Your obedient servant,

S. KORSAKOFF, M.D.

Moscow, January 13th, 1892.

[Note by Dr. Jones.—It is nearly two years since my holiday in Russia. My

visit to the University Clinic at Moscow was made in company with Dr. Moquelevitch, of Moscow, and whether the gentleman who took us round was named Dr. Korsakoff or some other name I now forget, but I trust the description of that person in my article as a "most courteous and able specialist" will be allowed to stand correct.—ROBERT JONES.]

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### "THE NANNERCH INSTITUTION."

This is the title of a proposed new Institution for the Treatment of Mental Diseases, near Mold, North Wales. We have received a circular, asking our co-operation in forming there "*A Private Asylum and Retreat for Middle-Class Patients.*" A Form of Application for Shares accompanies the circular. The Shares are £1 each; the Debentures £10.

The circular is signed by the General Manager, J. Herbert Wilkinson, the offices being at 5, Norfolk Street, Manchester. We believe these documents have been widely circulated.

No doubt medical men, being aware that the new Lunacy Act forbids the granting any fresh licenses for private asylums, must have felt no small surprise in receiving a circular which entirely ignores this fact, and proposes to obtain the subscriptions of persons applying for an allotment of Shares.

We immediately wrote to Mr. Wilkinson for an explanation. The reply was to the effect that the Company purpose to make a special application for a License as soon as "we get the necessary capital." All we can say is that it might have been just as well to make this application for a License before, not after, issuing the Form of Application for Shares, or obtaining the capital.

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### Obituary.

#### DR. T. B. CHRISTIE.

Dr. Thomas B. Christie, C.I.E., died on the 15th January, 1892. He had but recently retired from the post of Medical Superintendent of the Royal India Asylum, Ealing, and expired at his residence, Madeley road, not far from the institution which he had directed so long. He was formerly Superintendent of the North Riding Asylum, Clifton, near York. Dr. Christie had an apoplectic attack some years ago, and had been in failing health for some time. His sudden death came, however, as a shock at last, when his friends hoped that with care and the absence of professional work he might enjoy some years of peaceful life after his retirement.

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#### DR. E. S. WILLETT, J.P.

Dr. Edmund Sparshall Willett became the proprietor of the Wyke House Asylum, Isleworth (Middlesex) in 1856, and remained so until his death, on February 20th, at the age of 64. "No private asylum stood higher in public estimation, and it was well known that his patients were treated with all that generous consideration which hospitable Englishmen are accustomed to show towards their private guests. Dr. Willett was an ardent sportsman, and no one was more popular than he in the hunting field and at the covert side. As a Magistrate he knew well how to temper justice with mercy, and his poorer neighbours all found in him a generous friend, ever ready to help them with money and good counsel."—

"Lancet." He was not given to the use of the pen. On one occasion, however, we induced him to contribute an interesting case of sudden recovery to this Journal. This was the only matter ever contributed by him to our columns.

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#### DATE OF NEXT QUARTERLY AND ANNUAL MEETINGS.

The next Quarterly Meeting of the Medico-Psychological Association will be held at Bethlem Hospital, on Thursday, May 19th, 1892, and the Annual Meeting will take place at York, July 21st, 1892.

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#### THE NEW COMMISSIONER IN LUNACY.

We are glad to be able to record in the Journal that the lot has fallen on Dr. Frederick Needham, the Medical Superintendent of Barnwood House, Gloucester. We only express the unanimous feeling of the members of the Medico-Psychological Association in saying that Dr. Needham is the right man in the right place.

We seize the occasion to congratulate Dr. Clifford Allbutt on his election as Regius Professor of Medicine in the Cambridge University. Possibly he may be disposed to exclaim—

Better twenty years in Cambridge  
Than in Whitehall Place a day.

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#### *Appointments.*

BEADLIS, C. F., M.R.C.S., L.R.C.P., appointed Assistant Medical Officer to Colney Hatch Asylum.

FENNINGS, A. A., M.B., B.S., appointed Junior Medical Officer to Camberwell House Asylum.

FISHBOURNE, Dr. J. E., appointed Fourth Physician to the British Hospital for Mental Disorders.

GIVEN, J. C. M., M.B. Lond., appointed Assistant Medical Officer to the Derby Borough Asylum.

HUNTER, ANDREW, M.B., C.M., appointed Junior Medical Officer to Montrose Royal Asylum.

REVINGTON, G. T., M.D. Dub., appointed Resident Medical Superintendent of the Criminal Asylum, Dundrum, *vice* Dr. Ashe, deceased.

SYKES, A., L.R.C.P., M.R.C.S., Assistant Medical Officer to the City and Borough Asylum, Hillesdon, Norwich.

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#### EXAMINATION IN PSYCHOLOGICAL MEDICINE.

December Examination for the Certificate of Efficiency in Psychological Medicine, held at Aberdeen :—James Humphry Skein, M.B., C.M.

## INDEX MEDICO-PSYCHOLOGICUS.

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GIVING THE DEFINITION, ETYMOLOGY AND SYNONYMS OF THE  
TERMS USED IN MEDICAL PSYCHOLOGY

WITH THE

*SYMPTOMS, PATHOLOGY, AND TREATMENT OF THE  
RECOGNIZED FORMS OF MENTAL DISORDER*

TOGETHER WITH

The Law of Lunacy in Great Britain and Ireland.

EDITED BY

D. HACK TUKE, M.D., LL.D.,

Examiner in Mental Physiology in the University of London; co-Editor of "The Journal of  
Mental Science."

ASSISTED BY ONE HUNDRED AND TWENTY-SIX CONTRIBUTORS.

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This Work, the first of the kind which has been attempted, aims at providing information, more or less systematic, in regard to the Definition, Etymology and Synonyms of the Terms used in Medical Psychology, with the Symptoms, Pathology and Treatment of the recognized Forms of Mental Disorder, together with an abstract of the Law of Lunacy in Great Britain and Ireland.

A large number of short Definitions of words have been introduced.

Articles of greater length treat of the most important subjects which fall under the head of Psychological Medicine.

The Philosophy of Mind is expounded in a separate Introductory Article, and is not lost sight of in the Shorter Definitions and other Articles; but it is to be borne in mind that the fundamental aim of the Dictionary is directed to Morbid Psychology, and not to Mental Science in its ordinary restricted sense.

An account is given of the methods of Psycho-Physical Research which have been introduced in recent times into Psychological Laboratories established in various Universities in Europe and in the United States; also of the results which have been reached in regard to the Reaction-time of Mental Phenomena.

The History of the Insane, and the reforms undertaken to ameliorate their condition in various countries of the world, have been fully given.

An important feature of the Dictionary is the introduction of Bibliographical References in connection with the most important subjects treated of in the Articles; and, in addition to these, a copious Bibliography of English works bearing upon Psychological Medicine will be found at the close of the Work.

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## *The Journal of Mental Science.*

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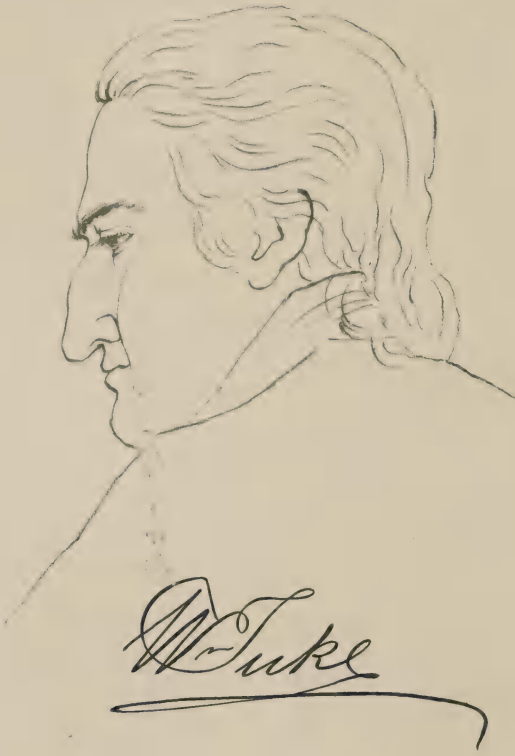
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### PART 1.—ORIGINAL ARTICLES.

*Retrospective Glance at the Early History of the Retreat, York ;  
its Objects and Influence.\** By D. HACK TUKE, M.D.

In celebrating the Centenary of the York Retreat, the first question which arises in everybody's mind is, why was it established, and why at one time rather than at another? Further, it is natural to inquire what were its objects, and what influence has it exerted?

I. To answer the former questions we must briefly touch on the general condition of the insane a century, or rather more than a century ago, and also on the local circumstances which led up to the foundation of the institution. I shall not describe the dreadful suffering and neglect which existed in regard to the former condition of the insane. I may take it for granted that everyone here knows sufficiently well the deplorable state in which, for the most part, those labouring under mental afflictions were formerly to be found. He who doubts the truth of the descriptions given of the *bad* old times should visit the Guildhall Museum in London, and he will see there a specimen of the heavy chains formerly in use at Bethlem Hospital, and also the celebrated figures by Cibber of raving madness and melancholy bound in fetters. The Treasurer and Governors of Bethlem have presented these relics of the past as the outward and visible sign of the blessed change which has taken place in asylum treatment. So far from being ashamed of them we glory in having them exhibited to the public eye, that the thousands of people who visit the Guildhall Museum may "look on this picture and on this."

It is interesting to refer for a moment to John Howard's incidental reference to asylums when, at the later part of the 18th century, he was visiting prisons in various parts of the

\* Paper read at the Centenary Meeting of the Retreat, York, held at that Institution, May 6, 1892.



world. He says, "I greatly prefer the asylum at Constantinople to that of St. Luke's, or to Swift's Hospital at Dublin;" but he appears to refer to the structure of the building, the rooms, and the corridors, and the gardens rather than to the condition of the patients themselves, for at Constantinople there was an asylum for *cats* near the Mosque of St. Sophia, where the *feline* inmates seem to have received more consideration than the human inmates of the asylum. Speaking of English prisons, in 1784 Howard observes that idiots and lunatics are confined in some gaols, and adds, "These serve for sport to idle visitors at assizes and other times of general resort. Many of the Bridewells are crowded and offensive, because the rooms, which are designed for prisoners, are occupied by the insane." It is remarkable that more practical work was not done for the insane in England at this period when we remember the great interest which was excited in the disease by the fact that a distinguished Prime Minister, Lord Chatham, and the Sovereign himself had been laid low by mental disease. In fact, the attention of the nation had been concentrated upon the sick-room of George the Third and upon Dr. Willis, the clerico-medical doctor, who gained so much notoriety at that period. It was in April, 1789, that his Majesty went to St. Paul's to give thanks for his recovery, and enjoyed a lucid interval until 1801. It may be observed in passing that the treatment of the Royal patient was much on the lines of the prevalent doctrines of the day, perhaps not quite so depressing; and although there was nothing apparently to call for coercive methods, he was not only mechanically restrained by the doctor's orders, but was brutally knocked down by his keeper.

It would carry me quite too far, however interesting it might be, to recall what was happening in the world at the eventful period when this comparatively small work was being commenced at York. But what a contrast do the quiet proceedings which we commemorate to-day present to the wave of excitement which was passing over England as well as France, where the guillotine had just been invented and the King's fate was rapidly approaching. If we turn to the Annual Register of that period its pages are full of addresses from political societies in this country to the French National Convention. The preface to this volume asserted that "metaphysicians, geometers, and astronomers have applied the compasses of abstraction to human passions, propensities, and habits. The minds of men are alienated from kings and become enamoured of

political philosophy." It may be said of some of the great events of this period that splendid and magnificent as they were when contrasted with lesser achievements the world might have been better had they never occurred. Washington exclaims in one of his letters, "How pitiful in the eye of reason and religion is that false ambition which desolates the world with fire and sword for the purpose of conquest and fame, when compared with the minor virtues of making our neighbour and our fellow-men as happy as their frail condition and perishable natures will permit them to be."

And it was this very thing, "the minor virtue of making our fellow men as happy as their frail condition permits them to be," that characterized the proceedings at York a hundred years ago at a time of local as well as national excitement, when the Corporation of York presented Charles James Fox with the freedom of the city in recognition of the efforts which he had made on behalf of liberty and the rights of man.

I must now ask your attention to the earlier year of 1777, when an asylum was opened at York in consequence of the need felt for such an institution for the insane poor in this locality. It was commenced under favourable auspices and evidently with the best intentions. It was not very long, however, before its management became unsatisfactory. I wonder how many people know that Mason, the Poet and Precentor of York Minster, was something more than either, and, in conjunction with Dr. Burgh and Mr. Withers, of York, endeavoured to hold the Governors of that day to the original design of the institution. They were persistently thwarted in their honourable endeavours. In 1788 Mason published his "Animadversions" on the asylum. In 1789 he was the means of procuring a legacy, which afterwards constituted "Lupton's Fund" for the poor, but from unworthy motives this charity was opposed by the physician of the asylum, and the Governors even passed a resolution in 1791 that anyone who contributed to it (and among those who did so was no less a person than Wilberforce) should be excluded from the privilege of being a Governor. In fact, in spite of these praiseworthy efforts, nothing whatever was done to remove abuses, and Jonathan Gray, the historian of the old York Asylum, wrote, "The opponents seem to have abandoned the matter as hopeless," and pathetically adds: "It cannot be doubted, therefore, that Mason, Burgh, and Withers quitted the world under an impression that their labours in this benevolent cause had been worse than useless, having been repaid only by

obloquy and misrepresentation." Although, however, they were thus hopeless about the York Asylum they rejoiced to know that an important step had been taken in establishing another institution. And this brings me to the well-known local incident which occurred in 1791.

A female patient was admitted from a considerable distance into the York Asylum. After a time her relatives desired and authorized some of their friends in York to visit her. They met with a repulse from the asylum authorities, and not long afterwards the patient died. That there are cases when a superintendent is fully warranted in advising the relatives and friends not to see a patient cannot be denied, and it would be, therefore, very unreasonable to ground serious complaint on the simple refusal of the superintendent to allow a lunatic patient to be visited. However, in this instance, as the patient was very ill and her friends were forbidden to see her, suspicions were naturally aroused, and further inquiries made after her death suggested neglect and possible cruelty. At this juncture William Tuke, a philanthropic citizen of York, was informed of the circumstances. He felt strongly that there was something wrong, not only in this case, but in the general management of the institution. He was not given to listen readily to sensational reports; his temperament was certainly sufficiently calm, and indeed his character, if contemporary descriptions are worth anything, was typical of enthusiasm without fanaticism, human sympathy without intrusiveness, philanthropy without fads. His portrait on the wall is expressive, I think, of this kind of man. The evidence, therefore, must have been of a very decisive character to induce him to arrive at this conclusion. He knew that any direct attack upon the asylum would meet with the same fate as that which disheartened Mason and Dr. Burgh; but his mind was stirred within him, and he began to think whether it would not be desirable and possible that an institution should be established in which, without destroying privacy, there should be no secrecy as regards the family of the patient, and in which the patient should be treated with humanity and kindness. Thus revolving the subject in his mind, he arrived at the conclusion that the question ought to be answered in the affirmative. He conferred with his friends. Some of them took the same view as himself, especially his son and daughter-in-law, Henry and Mary Maria Tuke, who warmly supported the idea, as also did his excellent friend, Lindley Murray, of York. His own wife, although she had been a helpmate in some of his benevolent

schemes, did not favour this, and, being of a satirical turn of mind, said he had had many children emanate from his brain, and that "his last child was going to be an idiot." Who shall say how many of the great designs of men have been nipped in the bud by the ridicule of women? However, he was not one to be easily discouraged either by opposition or by satire, and the result was that in the spring of 1792 he brought forward a definite proposition that an asylum for the insane should be established, at the close of, and altogether distinct from, the business transacted at a quarterly meeting of the Society of Friends held at York. No official record, therefore, was made of the conference, either then or subsequently. The proposition was thought to be one the wisdom of which admitted of grave doubt indeed; a wet blanket was, in fact, thrown on the scheme, and the meeting broke up in this mood. Even several years afterwards we find him writing a letter on the brink of despair, in which he exclaims, "All men seem to desert me in matters essential." Many would have no doubt been permanently disheartened; but William Tuke made still further inquiry as to the necessity for such an institution with the effect of fortifying his position. He visited some of the asylums in repute at that period. At St. Luke's Hospital, London, he found a miserable state of things, chains, and a large number of patients lying, as he described them, naked and on filthy straw. His description recalls that given of Mrs. Fry's visit to an asylum at Amsterdam many years later, where she noticed one unhappy woman heavily ironed and similarly grovelling on the floor.

What this angel of mercy was unable to do at the Amsterdam asylum William Tuke was able to do at St. Luke's Hospital, so far as this, that a female patient who was thus chained to the wall and shamefully neglected was subsequently removed to the Retreat, and in one of his letters he speaks with gratification of the comfort thus afforded her.

Well, William Tuke, although he had received a check, returned to his charge and reinforced his arguments at a meeting held at midsummer three months after his first proposal (June 28th). The opposition was renewed. One of those who were present on this stormy occasion has stated that the whole scheme seemed for some time as if it would be entirely shelved, so strong was the objection to it, but that the speech of Henry Tuke turned the scale, for if his father was the *fortiter in re*, the son was the *suaviter in modo*, which sometimes succeeds when the other alone fails. He said to the meeting, "Well.



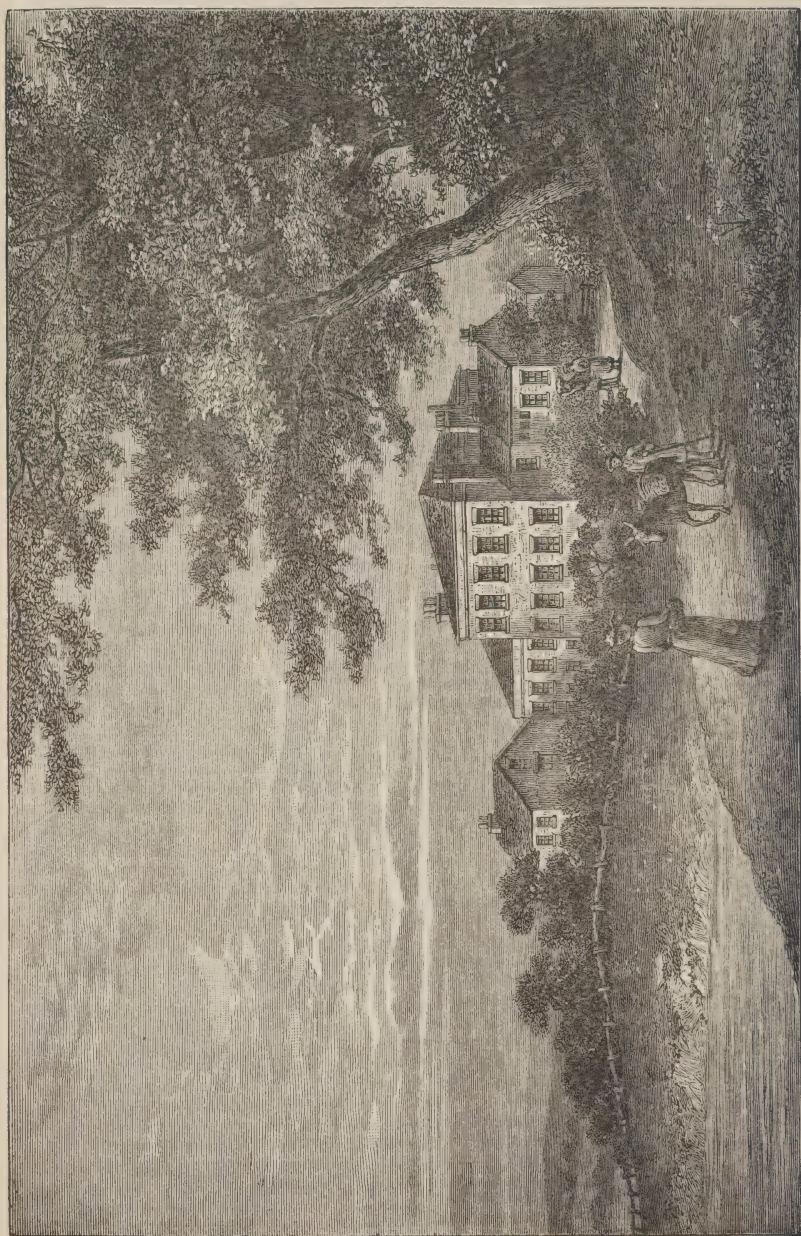
but isn't it worth while considering my father's proposition ? " The consequence was that at this second meeting the Retreat was instituted, though not without the note of Cassandra being heard, and, therefore, assembling as we do in this month of May to celebrate it, we meet very appropriately at a time intermediate between the first proposition in the spring and its formal institution in the midsummer of 1792, and can vividly realize the anxiety which must have filled the breast of the projector as to whether his scheme would be crushed or accepted.

The opposition to the proposal is not surprising when we consider how little was known at that time of the condition of the insane, or of what might be done in the way of treatment and kindly moral management. I have already said that conspicuous among those who did support the proposition was the well-known Lindley Murray, who not only gave what I may call his "Grammar of Assent" to the undertaking, but was helpful from time to time in giving that which was far better than money—his calm judgment and thoughtful advice as to the best mode of proceeding—employing just that diplomatic way of going about business which succeeded in winning over objectors and lukewarm friends in support of the experiment, which Lindley Murray so well knew how to employ on critical occasions—a man so justly respected for his worth, his kindly nature, and the judicial character of his mind. To most he is known only as the Grammarian, and I suppose there are many who wish they had never formed his acquaintance in this character when at school; but he ought to be remembered with respect for the wise counsel which he gave in connection with the early history of this institution.

A learned Professor of Chemistry in an American College, when travelling in Europe, visited the recluse at Holdgate at this time, and in his book, giving an account of his travels, he records this visit with great pleasure, and writes: "Who would not rather be Mr. Murray, confined to his sofa, than Napoleon, the guilty possessor of a usurped crown and the sanguinary oppressor of Europe?" I fear that, in this wicked world, all would not reply as the Professor anticipated!

When I was in America some years ago I was requested to be present at a social gathering in the institution at Northampton, Massachusetts, over which the veteran alienist, Pliny Earle, presided, as medical superintendent, and in the speech which he made nothing was more interesting to the audience than the statement that when a young man he visited York and had the pleasure of finding in the bedroom which he occu-





*Care, p. ix.]*

ORIGINAL BUILDING OF THE RETREAT, YORK. INSTITUTED 1792.

*[Cooper, del.]*

pied in Samuel Tuke's house, the wheeled chair which was used for many years by the Grammarian, who, as you know, met with an accident in his native land (America), in consequence of which he had only the partial use of his lower extremities.

As a consequence of the Resolution which was passed at the midsummer meeting, ground was purchased in a suitable and healthy locality near York, a city then of 16,000 inhabitants. The locality itself was historically interesting, for it contained a mound on which at that time stood a windmill, from which it is supposed that its name, "Lamel Hill," was derived, "being no more," says Drake, "than *le meul*, miln hill, called so by the Normans." Its height above the summer level of the Ouse was about 90 feet. Here it was that the troops of Fairfax and Lesley placed their battery during the siege of York by the Parliamentary Army in 1644, symbolical, we may say, of the fight made by those whose weapons were not carnal against the cruel treatment of the insane, while they laid siege to the whole system of Asylum abuses. But we must hasten on and think rather of the new Institution itself, of which, in its original state, there is a representation here from a drawing taken by a York artist, Mr. Cave. The building bore no resemblance to the prison-like asylum of the day, and a special point was made of avoiding bars to the windows; but time will not allow of my entering into any details, interesting as I consider them to be. If these old windows now excite surprise, let it be remembered that at Bethlem Hospital, even in 1815, the bedroom windows were unglazed.\*

On the foundation stone, which Macaulay's New Zealander may some day find among the ruins of the Retreat, were inscribed the words:—

HOC FECIT  
AMICORUM CARITAS IN HUMANITATIS  
ARGUMENTUM  
ANNO DÑI MDCCXCII.

This inscription is of great interest and importance, as proving that in 1792 the word humanity was uppermost in the minds of the friends of the movement—their leading idea. "The charity or love of friends executed this work in the cause of humanity." In other words, charity raised the edifice as a token or sign in demonstration of humanity. It is also interesting to note that on the foundation stone, which was not actually laid

\* "Report of the Select Committee of the House of Commons, 1815."



until 1794, the period of instituting the Retreat was carefully recorded as 1792, as, indeed, it was on the first page of the early Annual Reports.\*

But in dwelling on the foundation stone we must not forget the important matter of the name which was given to the institution, and this, like the inscription, carried with it a deep meaning. I have said that the wife of William Tuke indulged in some sarcasm with regard to his proposal. It was very different, however, with his daughter-in-law, Mary Maria Tuke, and when the inevitable question arose and was discussed in the family circle, "What name shall we adopt for the new establishment?" she quickly responded, "The Retreat"—a name, be it remembered, which up to that time had never been applied to an asylum for the insane; in fact, in the vulgar tongue, an asylum was, as I have said, a madhouse—this and nothing more. I think it was a most felicitous term, and a beautiful illustration of that aspect of the movement uppermost in the minds of those who were engaged in the undertaking, that, as is stated, "It was intended to convey by this designation their idea of what such an establishment should be, namely, a place in which the unhappy might obtain a refuge; a quiet haven in which the shattered bark might find a means of reparation or of safety." I wish that I had the happy power of reviving or restoring the picture of the interior of the early Retreat life as I seem to see it myself. William Tuke's brother-in-law, T. Maud, a surgeon in Bradford, was to have helped him in carrying forward his plans and resided at the Retreat, but this arrangement was unfortunately cut short by his unexpected death, and William Tuke had to superintend it himself. My father, in his "Review of the Early History of the Retreat," writes: "The Founder looked around among his friends for a suitable successor, but not finding one ready for the engagement, he agreed to take the office himself till a substitute should be found; and for nearly twelve months he had the immediate management of the young establishment upon him"—the estab-

\* When the Retreat was projected the great mass of the insane in England were unprovided for as regards asylum accommodation. In addition to three or four private asylums, including Ticehurst, there were the well-known, but unfortunately ill-managed hospitals of Bethlem and Saint Luke's, and the lunatic ward of Guy's Hospital. There were, at Manchester and Liverpool, wards for the insane in connection with the Royal Infirmaries of those towns, and in addition to the old York Asylum there was the Norwich Bethel Hospital, and St. Peter's Hospital at Bristol, to which, many years after, the celebrated Dr. Prichard was physician. The recognized number of insane in London and in the country was under 7,000, which stands out in strange contrast with the number registered at the present day.

lishment in which for nearly thirty years he took so deep and paternal an interest. There was, then, William Tuke, the father of the little family, organizing, planning, and arranging the details of the house, and planting with his own hands some of the trees which we now see on the north boundary of these grounds. Then there was a physician at that time in York, Dr. Fowler, who, in this capacity, visited the Retreat, and was a kindly, estimable, and unassuming man. He is described as one "who estimated men and things according to their real value rather than their names or aspects." He originally came from Stafford. I am unable to obtain any particulars with regard to his life; but his name is associated with what is called "Fowler's Solution," the well-known preparation of arsenic in use at the present day. He died, much regretted, five years after the opening of the institution, and was succeeded in the office of visiting physician by a young and ardent physician, Dr. Cappe, whose talents and affectionate disposition gave promise of a useful career, and who felt a warm interest in the Retreat. He threw his whole soul into his work, but grave pulmonary symptoms soon made their appearance. He sought in vain to recover his health in a warmer clime, and, to the sorrow of all connected with the Institution, fell a victim to consumption.

But to return. Patients were being admitted, and were kindly cared for and treated. I have mentioned the poor woman who was brought from St. Luke's, and I may add that there was another patient (a man), who, when admitted, was found to have lost the use of his limbs, and when released from his manacles tottered about like a little child, but regained the use of his muscles and required no mechanical restraint. When visited by one of his relatives and asked what he called the Retreat, he replied, with great warmth, "Eden, Eden, Eden!"

And now I must hasten to speak of one who was largely influential in carrying out the hopes and aims of the original projector. This was George Jepson, a most estimable man residing at Bradford. My father, who greatly appreciated him, writes:—"He was almost entirely a self-taught man; yet so highly esteemed in his neighbourhood, that he was the counsellor of many of the country people for miles around his residence, in some of their most important private concerns; and he may be said to have been a medical practitioner." He by no means confined himself to the medical art; in fact, he never passed any examination, for at that period it was not illegal to practice without a qualification. He was an acute

observer, and one who thought for himself. It was in 1797 that he was induced to come to the Retreat. It certainly was not the amount of medical knowledge which he possessed, but rather freedom from the trammels of the medical schools of the day (unless indeed he had a prejudice in favour of the lancet), which rendered him a suitable person to be appointed to the Retreat. My father thus writes of this period :—" George Jepson was of course initiated into the duties of his office by William Tuke. It was indeed," he remarks, " a rare concurrence of circumstances which brought together two minds, one so capable to design largely and wisely, and the other so admirably fitted to carry such designs into execution. The two men, though exceedingly different, were one in an earnest love to God and man, in disinterestedness and decision of character, and therefore in a steady constant perseverance which works onward wherever truth and duty lead." It may also be stated that when Sydney Smith visited the Retreat at a later period he was much struck with Jepson, and his wife also, who acted as matron. The Grand Duke Nicholas, afterwards the Emperor of Russia, on going round the Retreat, was impressed by her appearance, and remarked in a low tone to my father, " *Quel visage !* " No man was more esteemed and beloved by the projector of this institution and by his family, and I am quite sure that if he could be with us to-day he would wish that due honour should be rendered to Jepson for what he did within these walls. There was but one feeling, that of mutual esteem. William Tuke rejoiced at being able to meet with a man who entered so readily into his schemes and acted so loyally in carrying them out ; while Jepson looked upon " the Manager-in-Chief " (as my father designates William Tuke) as his " guide, philosopher, and friend." It was William Tuke's custom to correspond with a medical nephew and to communicate to him what they were doing at the Retreat, especially as to the results of the then heterodox treatment pursued. My father attached great value to these letters, and I have a vivid recollection of the pain which he experienced in consequence of a number of them being carelessly destroyed by a domestic who, in her ignorance of their value, had torn them into shreds, and had been using them for her candles. In one of the letters which remain (and some are only fragments) written in 1798, and addressed from the Retreat, I find him discussing the value of opiates, although without the advantage of a medical education ; while in other letters he refers with



lively interest to the utility of the warm bath. Of course, all this was very wrong from my own professional point of view, but there was some excuse for it when we consider the state of mental medicine at that time at York. Why, the physician of the old York Asylum boasted of his "secret insane powders, green and grey," which, as Dr. Thurnam states, "were sold as nostrums for insanity throughout a great part of Yorkshire and the north of England." In another letter, dated from the Retreat in that year, and before William Tuke had had the good fortune to meet with Jepson, he mentions the case of a female who, on the way to the institution, "dreaded being put into a kind of dungeon." When visited, the morning after her arrival, she promised him that if she might only stay at the Retreat she would behave well, and she requested her daughter who had accompanied her to return home. On this he makes the commentary, "A strong proof of the sensibility of insane persons respecting those who have the care over them." With delight he reported that he had almost every day observed an improvement in the case of a patient among those first admitted who had occasioned him great anxiety. In one instance a patient committed suicide, and he was greatly distressed. He relieved his mind in a letter to his friend, the well-known philanthropist Richard Reynolds, and received a very sympathetic letter in reply.

I may remark that it is not very difficult to understand the successful treatment of the patients at the Retreat, although there may have been little of that definite scientific or medical element which is so justly prized at the present day. But although there was not over much medicine and still less science in the primeval atmosphere of the Retreat, the single-mindedness of those who were trying what may be called a Holy Experiment—that of personal kindness and love to man in his misfortune and sickness as well as in health, helped to secure its success. It must not be supposed that medicine was despised. It is true that a clean sweep was made of the routine of bleeding, blistering, purgatives and emetics then in vogue in what were regarded as the best institutions for the treatment of the insane, and this probably gave rise to the idea that *Æsculapius* was not duly honoured at the Retreat; but there was the guarded use of drugs, a careful attention to the general health, and a very special use of the hot bath. It was also found that instead of lowering the patient it was generally better to feed him, and that good nights could be obtained for the sleepless, not by antimony and other depressants, but by good malt liquor.



Medical men were scandalized at such a reverse in the mode of treating excitement and sleeplessness, but it was acknowledged before long that the results were of the happiest kind.

And here we shall be assisted in forming an idea of the management and treatment pursued at the Retreat by the evidence which William Tuke gave before the Select Committee of the House of Commons, although of course he did this at a much later period. The new system had become widely known, the old system was on its trial, and the Parliamentary Committee naturally called upon the projector of the Retreat to supply them with information in regard to its management and the treatment pursued there. I have heard my father, who accompanied him, speak of the great interest which his presence excited. The witness spoke with pleasure and satisfaction of what had been effected at the Retreat. After stating (in reply to a question) that he had taken an active part in everything that had been done respecting the institution from the beginning, he was asked to give to the Committee an account of the practice pursued in the establishment. He replied in general terms that "everything is done to make the patients as comfortable as they can be, and to endeavour to impress upon their minds the idea that they will be kindly treated; that is generally the setting out; when that is done it is not so difficult to manage the patients." Asked in regard to the effect of medicines in cases of mental derangement, he replied that he thought that very little could be done except when the disorder is accompanied by bodily disease of one kind or other. He said that from his personal observation he considered the patients had frequently recovered in consequence of the removal of the physical complaint. He was requested to inform the Committee whether the patients were periodically physicked, bled, made to vomit, and so forth, and he replied with great emphasis "*No such thing*," and added, "That with respect to bathing the bath was frequently used, the warm bath more than the cold, but that in no case was it employed periodically. It was his opinion that the warm bath had been found very beneficial." The subject of mechanical restraint has become such a burning question in these later days that it is interesting to ascertain from his evidence what was the actual practice at the Retreat. It has often been stated in histories of the treatment of the insane in England that the Retreat introduced what is called non-restraint. This is quite a mistake. It never was and is not at the present day a dogma held by those who have the management of the

Retreat that under no circumstances whatever is it justifiable to resort to mechanical means of restraint. On the contrary, it was frequently stated by those who spoke in the name of the institution that no rule could be laid down on the subject, and that it must be left entirely to the discretion of the medical superintendent so long as he retains the confidence of the Committee. William Tuke stated to the House of Commons Committee that in violent cases it was found necessary to employ sometimes a leather belt to confine the arms, and that this was preferred to the strait-waistcoat on account of its not heating the body so much, and leaving the hands free for use, although not so much as to do mischief. Seclusion was resorted to, he said, when it was found necessary. Thus he says, "We have a patient who has long lucid intervals of calmness, but is subject to very violent paroxysms and very sudden ones, during which we conceive he would injure any person who came within his power; this man during his paroxysms is confined in a separate room, about 12 feet by 8." In this instance it seems that the strait-waistcoat was occasionally used, and William Tuke found it necessary to state that he was not submitted to chains of any kind.

I hope that this evidence, along with the letters I have quoted, few as they unfortunately are, will convey a clear idea of the early, as well as the somewhat later, Retreat treatment of patients. I must for a moment retrace my steps to remark that one of the best proofs of the important work carried on in the early days of the Retreat was the striking impression produced upon visitors, especially medical men. Only two years after its opening a Swiss physician, Dr. de la Rive, bent his steps thither, was delighted with what he saw, and published a very interesting account of his visit. "This house," he wrote, "is situated a mile from York, in the midst of a fertile and cheerful country; it presents not the idea of a prison, but rather that of a large rural farm. It is surrounded by a garden. There is no bar or grating to the windows." In 1812 Dr. Duncan, of Edinburgh, who was greatly interested in the lunatic asylum of that city, also visited the Retreat, and spoke in the highest terms of its management. He considered that it had "demonstrated beyond contradiction the very great advantage resulting from a mode of treatment in cases of insanity, much more mild than was before introduced into almost any lunatic asylum either at home or abroad." He regarded it as "an example claiming the imitation and deserving the thanks of every sect and every nation. For, without

much hazard of contradiction from those acquainted with the subject, it may be asserted that the Retreat at York is at this moment the best regulated establishment in Europe either for the recovery of the insane or for their comfort, where they are in an incurable state."

When in Paris many years ago, I visited M. Ferrus, the first Napoleon's physician, and a distinguished alienist. He recalled in graphic terms and with that gesture language in which the French so much excel us poor phlegmatic Englishmen, the pleasure and surprise he had experienced on visiting "The Retreat." I subsequently found a description of his visit in print. There he refers to it as "the first asylum in England which attracted the notice of foreigners;" and describes its projector as "a man for whom religion and morality were practical virtues, and in whose eyes neither riches, nor poverty, nor imbecility, nor genius ought in the slightest degree to affect the bonds which unite all men together in common. He thought with reason that justice and power ought to be evinced, not by shouts and menaces, but by gentleness of character and calmness of mind, in order that the influence of these qualities might make themselves felt upon all, even when excited by anger, intoxication, or madness. The traditions of this friend of humanity are preserved in the house which he founded." M. Ferrus adds that "those who are admitted find repose in this building, which much more resembles a Convent of Trappists than a madhouse; and if one's heart is saddened at the sight of this terrible malady, one experiences emotions of pleasure in witnessing all that an ingenious benevolence has been able to devise to cure or alleviate it."

A pleasing picture of the interior of the Retreat is given in a poem written more than 80 years ago. Many here are no doubt familiar with certain lines of Wordsworth, headed "To the spade of a friend, an agriculturist, composed while we were labouring together in his pleasure ground." His friend's name was Wilkinson, a minor Lake poet, who, on visiting the Retreat 14 years after it was opened, described it in verse too long to cite here, but from which I may take the following few lines:—

"On a fair hill, where York in prospect lies,  
Her towers and steeples pointing to the skies,  
A goodly structure rears its modest head;  
Thither, my walk the worthy founder led.  
Thither with Tuke, my willing footsteps prest,  
Who oft the subject pondering in his breast,  
Went forth alone and weigh'd the growing plan,  
Big with the lasting help for suffering man."

underrate it, it would be a fatal mistake to allow it to interfere with or in the slightest degree take the place of the social and domestic element, and the personal relationship between the physician and his patient which tend to mitigate the distress which may be occasioned by the loss of many home comforts and associations, along with the residence amongst strangers.

III. I must pass on now to an important event in the history of the Retreat. I refer to the publication of the "Description of the Retreat,"\* written by Samuel Tuke in 1813, and dedicated to his grandfather, William Tuke. Now what had the old York Asylum been doing since the female patient died there in 1791, an interval of 42 years? Why, it had gone from bad to worse. In the Preface to this book the author made an observation which gave great offence to the superintendent, who interpreted it to be a reflection upon that institution. Well, what was this terrible passage? Nothing more than this. "If it" (that is this book) "should be thought to afford satisfactory evidence in favour of a more mild system of treatment than has been generally adopted; if it should also prove, which I flatter myself it will, the practicability of introducing such a system into establishments for the insane poor, whose situation has, in general, been too pitiable for words to describe, I shall esteem myself peculiarly happy in this publication. This paragraph *did*, however, cause the greatest offence, and the superintendent of the asylum wrote a warm letter to the newspapers under the name of "Evigilator" in defence of the institution. *Qui s'excuse s'accuse*. From that moment hostilities commenced. York became the scene of an exciting encounter. I have said that Fairfax's battery on Lamel Hill was a symbol of the moral warfare upon which the Retreat entered. I find in the *Yorkshire Chronicle* of September 30th, 1813, a letter from North-allerton, signed by "Viator," which runs thus:—

"It is customary with travellers to call for the papers containing intelligence of the important events which now attract the attention of all the world. After my supper this evening I indulged my usual appetite for news, and on two papers being brought to me, from a sort of instinctive partiality for Yorkshire, I seized the *York Courant*, in preference to a London paper, which was at the same time laid upon the table. The editor's summary account from the late Gazettes pleased me much; I there read:

\* "Containing an account of the Origin and Progress, the Modes of Treatment and a Statement of Cases, with an Elevation and Plans of the Building."



First despatch, 'Forced St. Cyr from a strongly entrenched camp;' second despatch, 'Melancholy fact of Moreau having lost both his legs;' third despatch, 'Important victory over Vandamme;' and fourthly, 'A Gazette containing the numerical account of cannon and prisoners taken in the various actions.'

"My heart was filled with exultation at these glorious achievements of our allies. Nothing less than the humiliation of the Grand Tyrant and the repose of all the world filled my imagination, when casually casting my eye upon a column of the paper parallel to that which contained this gratifying intelligence, I found an account of further hostilities having been carried on by 'storming,' 'boarding,' 'grape or shells,' by 'sapping,' 'mining,' 'catamaran,' or 'torpedo.' Now (thought I) for the fall of Dresden! And who is the gallant General that has employed all these means? On looking for the name and the date, I discovered with astonishment that *York* was the scene of these tremendous military operations.

"In a fit of terror and surprise the paper fell from my hand; by an involuntary impulse I rang the bell, and on the waiter entering, anxiously inquired if he had heard that the City of York had been blown into the skies by some insidious revolutionists. With equal surprise, but to my great joy, he answered, 'No, sir, all was well there to-day when the coach left it.' Recovering a little from my confusion, I took courage to examine this article a little more carefully."

The writer tells us that he then found that the article he had read was occasioned by the alarm which one "Evigilator" had taken at a mere description of the Retreat, written by one of the most unwarlike and inoffensive of people.

William Tuke, as vigilant and earnest as he had been in 1791, wrote a letter to the Governors of the York Asylum, in which he says he had the satisfaction of asserting that "kind and conciliating treatment is the best means to promote recovery, as proved in the management of the Retreat, where coercion, though sometimes necessary for feeding the patients and preserving them from injury to themselves or others, is administered in the most gentle manner, and the use of chains is never resorted to." It was not difficult to read between the lines, and the Governors, doubtlessly, did so. And here I cannot avoid pointing out the gratifying contrast, in which no one rejoices more than the present Governors, presented by the well-managed institution of to-day—well-managed for so many years—and that which, unfortunately, became so notorious at the period under review. As a Governor of Bethlem Hospital, I have the corresponding feeling. Nor can I resist the temp-

tation of expressing the pleasure which I feel in the fact that a former superintendent of the asylum, Dr. Needham, has been made a Lunacy Commissioner. A better appointment the Lord Chancellor has never made. Writing in the *York Herald* of October 23, 1813, Henry Tuke says of these Governors:—"Like a modern warrior of declining fame, they claim victory where others consider them defeated. Their self-congratulations will add nothing either to their own credit or that of their cause. The asylum has been wrested from its original design; the poor are in a great measure excluded; and the institution, it is understood, is committed to the care of a physician and apothecary, without the interference of any committee or visitors in the internal management. Thus, instead of being a public charity, it has become a source of private emolument and '*hinc illæ lachrymæ*.' Let the Governors of the asylum turn their attention to this important subject, and seriously consider whether they are acting the part of good stewards of the trust reposed in them. It is to them only that the public can look for a reformation, and without their interference all altercation is fruitless."

The question at the bottom of all this controversy was, whether or not the same system of neglect and cruelty, alleged to have been in force in 1791, was still a reality in 1813. As we know, prolonged investigations followed. Concealment was attempted, but fortunately in vain. A Yorkshire magistrate, Godfrey Higgins, of Doncaster, attracted by the fray, and convinced that abuses did exist in the asylum and ought to be exposed, came forward and was of the utmost service in bringing the engagement to a victorious result. I possess a large number of letters which passed between him and my father at this exciting crisis. A warm friendship was formed between them, based upon their equal indignation at cruelty and wrong. I met the widow of Professor De Morgan, when above 80 years of age, and she told me that she had received from the lips of Mr. Higgins himself a stirring account of his visiting the York asylum one morning, when a remarkable scene occurred. He was assured, on asking the attendant where a certain door in the kitchen led to, that the key could not be found. Mr. Higgins replied that if it was not found he would find a key at the kitchen fireside—the poker. The key was then instantly produced. When the door was opened, this faithful, fearless, and resolute magistrate entered, to find four cells in the most disgraceful and sickening condition. He demanded that he should be taken to see the

patients who had slept there the previous night, and was shown no fewer than thirteen women.

To give a history of this period and the disclosures which were made, would require a lecture devoted to it; but for our present purpose it is sufficient to record the fact that the Governors of the asylum, with the Archbishop of York in the chair, reinforced by the entrance of a batch of new Governors, eventually passed a series of resolutions which sealed the fate of the old *régime*, and paved the way for a complete reorganization in the management of the institution in 1814. I have met with those who think that the ill-treatment to which the insane were subjected in former days, whether in this asylum or Bethlem, in which I feel as much interest as in the Retreat, should be passed over in silence; I have indeed. But I am strongly of the opinion of Sydney Smith, when he said in anticipation of such a mistaken feeling, and in reference to the abuses in this very asylum at York, that they should be "remembered for ever as the only means of preventing their recurrence."

Now it was undoubtedly the exposure of the condition of the insane in the old York Asylum, followed as it was by suspicions in regard to the state of other asylums, which led to Parliamentary investigation into the abuses which, almost everywhere, existed at that time, and which, happily, forced the Legislature to pass acts for the protection of the insane and for the provision of better institutions. The link between the successful management of the Retreat on new lines and lunacy legislation is not my assertion. It was clearly pointed out by Sydney Smith in 1817, as well as by many others:—"The new Establishment" (he says) "began the great revolution upon this subject," and he adds, "The period is not remote when lunatics were regarded as being insusceptible of mental enjoyment, or of bodily pain, and accordingly consigned without remorse to prisons under the name of mad-houses, in the confines of which nothing seems to have been considered but how to enclose the victim of insanity in a cell, and to cover his misery from the light of day. But the success of the Retreat demonstrated by experiment that all the apparatus of gloom and confinement is injurious, and the necessity for improvement becoming daily more apparent, a Bill for the better regulation of mad-houses was brought into Parliament by Mr. Rose." It was, sad to say, after great delay and discouragement that really effective Acts of Parliament were passed, and, in this connection, the name of Lord Shaftesbury at once

rises to my lips. In the speech which he delivered in the House of Commons, when Lord Ashley, on the occasion of his introduction of the famous Lunacy Bill of 1845, his eulogy of the movement inaugurated here 53 years before, is of the strongest and warmest character. I am sure that we, who know what Lord Shaftesbury has done for the insane, can most fully appreciate the splendid, and, as in the case of the projector of this Establishment, the unremunerated services, which he rendered to this neglected class, and must acknowledge that the work in which he was engaged with such unfailing energy and perseverance was, as he himself regarded it, the necessary supplement to previous reforms, inasmuch as it evoked the strong arm of the law to make adequate provision for the insane and to protect them from harsh treatment. Honour to whom honour is due!

I should like to refer now to one of the most pleasant features of the history of the Retreat, and that is that there has been no international rivalry, and no desire in our own country to detract from the beneficial effect of the courageous step which was taken in this city 100 years ago.

A well-known French physician, the late Dr. Foville, after observing that Pinel was not aware of what was being accomplished at York until 1798, and that on the other hand it was not until 1806 that the news of the enterprise undertaken at the Bicêtre reached the Retreat, generously acknowledges that the philanthropists in Paris and in York alike deserve public recognition for the work of humanity which they simultaneously accomplished in France and in England, without there being room for raising any question of rivalry or precedence between them.\*

And who is there amongst us, as among all British alienists, that does not revere the memory of the illustrious Pinel?

Germany clearly recognized the improved methods of treatment introduced at the Retreat. One day, nearly 60 years ago, there arrived in York a German physician, Maximilian Jacobi, the son of a well-known mental philosopher, the head of a school of metaphysicians, contemporary with Goethe, who took a great fancy to the medical son, and expressed "his admiration of his unswerving devotion to his profession." The doctor came to the Retreat, was delighted with what he saw, and stayed some days at York for the purpose of examining on the spot the arrangements and management of an Institution with which he had already (in the year 1822) made his

\* Introduction to "*Le Corps et l'Esprit*," page xx.



countrymen acquainted, by translating into German, the work on the Retreat of which I have already spoken.

I really must read to you the passage in his travels in which he describes his visit to this city, to which he came by coach from Hull. He says:—"As I approached York I perceived the Retreat through the trees, when looking out to the left of the road, being able to recognize it from the 'Description of the Retreat,' which I had translated, and I rejoiced that I was now able actually to see this memorial of Christian humanity. A letter from my friend, Dr. Zeller, of Winnenthal, secured for me a very friendly reception from Samuel Tuke," who, Dr. Jacobi goes on to say, "introduced me to the superintendent of the Retreat, Thomas Allis, who by his character as well as by his outward man, produced a powerful impression, and who possessed special knowledge and dexterity in (comparative) anatomy, as was proved to me by the beautiful preparations to be seen in the new museum of the Yorkshire Philosophical Society. As Thomas Allis led me through the Retreat I felt at home from the first step, because I had so long been familiar with the plan and arrangements of the building from my translation of Tuke's "Description of the Retreat." I may mention that some time after his return to Germany he sent the latter a work on insanity inscribed, "To his friend, in dear remembrance of the two days spent with him in October, 1834. Siegburg."

Dr. Jacobi became in the course of years the Nestor of German medical psychologists, and, while the superintendent of the Siegburg Asylum, near Bonn, he in his turn wrote a work on the construction and management of asylums, which my father asked John Kitching to translate, and wrote an introduction to it of some length. I may add that I visited him at his asylum on the Rhine, when he was in very advanced life, and that he had lost none of his interest in the Retreat, nor was the memory of his visit to York dimmed by age. The whole incident affords a pleasing picture of international reciprocity in the common interests of humanity, and emphasizes the truth of what I am endeavouring to show, that so far from there having been any jealousy on the part of foreign countries, there has been the fullest, warmest, and most generous appreciation of the lead taken a century ago by the Institution whose birth we celebrate to-day. In connection with the visit of Dr. Jacobi to the Retreat, I may mention that another figure in the group to whom he makes a pleasant reference was the Visiting Medical Officer, Dr. Caleb Williams, a name so

familiar to us all, and for so many years honourably connected with the Retreat.

The Americans, and notably the very distinguished Dr. Isaac Ray, have been forward to pay their tribute to the influence exerted by "The Retreat," and have acknowledged the direct help they derived in the way of advice from those who were connected with it. I may, perhaps, be allowed to say that I possess the original of a letter of inquiry from an American to Samuel Tuke respecting the Retreat, and that it was in replying to it, the latter was led to think it might be useful to publish an account of the mode of treatment practised there, and which resulted in a work the wide-spread influence of which he little anticipated.

In our own country there has been the same generous feeling in recognizing the position of the Retreat as the pioneer in the amelioration of the condition of the insane. I may specially refer to Dr. Conolly, for the circumstance which connects his career with the Retreat is exceedingly interesting. I have just spoken of the remarkable influence of the publication of the "Description of the Retreat." But it had another effect no less remarkable, though not so generally known. There was in 1817 in the Edinburgh University a student of medicine of Irish extraction, but born in Lincolnshire, into whose hands there fell this book, and upon whom it produced a powerful and, as it proved, a permanent and far-reaching impression. That student was John Conolly, and in after years, when tracing his past history and the influences which led to his great work, he mentions this circumstance:—"Viewing the things which I have described day after day, and often reflecting upon them, and with deep impression, partly derived from the perusal again and again, even when still a student, of that excellent 'Description of the Retreat near York,' already alluded to, and which I would still urge every student to read and to add to his library, and partly from what I had actually seen at Lincoln a few weeks before commencing my residence at Hanwell, I was not long before I determined that whatever difficulties there might be to encounter, no mechanical restraints should be permitted in the Hanwell Asylum."—(*Medical Times and Gazette*, April 7th, 1860). If that little book of 1813 had done nothing more than inspire Conolly to undertake his work, it would not have been written in vain. Dr. Conolly always took pleasure in attributing to the foundation of the Retreat the reform in the humane treatment of the insane. "The substitution," he writes "of sympathy for gross unkindness,

severity, and stripes; the diversion of the mind from its excitements and griefs by various occupations, and a wise confidence in the patients when they promised to control themselves, led to the prevalence of order and neatness, and nearly banished furious mania from this wisely-devised place of recovery.”\* He spoke of it as “that admirable asylum, the first in Europe, in which every enlightened principle of treatment was carried into effect.” I may say that in his declining years I received a letter from him in which he said he loved to dwell upon this theme. I should like to add that we, on the other hand, can and do delight, in the same spirit, to render all honour to the admirable Hanwell physician. My father entertained the highest esteem for him, and in his writings has paid a warm tribute to his “zeal, talents, and integrity.” In a letter addressed to myself he writes:—“Lincoln furnished much unhappy evidence in the abuse of non-restraint, and I do greatly rejoice that Dr. Conolly has rescued the great experiment from the failure and miserable reaction which would, I believe, have taken place had it not been for what has really been effected at Hanwell, where all may not be done which meets the eye. I fully believe an excellent system is admirably carried out, and that Dr. Conolly really deserves all the credit which is given to him on the subject. We ought never to have recourse to mechanical restraint at the Retreat, except when it is decidedly the most easy and altogether unexceptionable method of coercing the patient; and whenever that is really the case, why should he be subject to a prohibitory law? If the general principle on the subject be fairly carried out, it will, I believe, be found that the infrequency of the exceptions will prove how fully the rule of non-restraint is carried out by us, and this kind of evidence ought to be satisfactory, and will, I think, be so to all reasonable men.”

I need hardly say that the writer of this letter raised his earnest protest against the abuse of restraint, and reprobates what in our days it would be a work of supererogation to mention, “those swingings, whirlings, suspensions, half-drowning and other violent expedients by which some physicians have sought to frighten the unhappy subject of insanity into reason, or at least into subjection.”†

These observations are necessary in order to understand the

\* “The Treatment of the Insane without Mechanical Restraints,” by Dr. Conolly, page 18.

† Introduction to Jacobi’s “Construction and Management of Hospitals for the Insane,” by Samuel Tuke, 1841, p. 35.

position taken in regard to mechanical restraints by those who first undertook the charge of the Retreat. When kindness failed to subdue maniacal excitement, when medical remedies failed to calm, and when there was danger to life or limb of a patient or attendant, then mild forms of personal restraint were reluctantly adopted rather than maintain a prolonged and exasperating conflict between them. It is notorious that at the same period, painful and degrading forms of restraint were employed in many asylums, and even at the Lincoln asylum, so worthily distinguished afterwards for its humane treatment, iron handcuffs weighing 11b. 5oz. and iron hobbles weighing 3lb. 8oz. were in use until the year 1829.

Having now glanced at the former days of this Institution, and endeavoured to show the great objects contemplated when it was founded, and having shown that the example it set has exerted a wonderful influence for good by its dual action of exposing abuses, and, most important of all, of showing a more excellent way, I would, in conclusion, emphasize the encouraging record of a century —

“Over the roofs of the pioneers  
Gathers the moss of a hundred years;  
On man and his works has passed the change  
Which needs must be in a century's range.”

Happily the moss which has accumulated upon the roof of the building which the pioneers of a new era in the history of the insane erected, has not been an indication of stagnation and desuetude, but rather the venerable reminder of the Past—the original work done under the roof of the old Retreat. We gladly recognize that a change has passed over man and his works, such an one as must necessarily be evolved if the law of progress is to be fulfilled. During this period, the civilized world has seen the rise and development of an entirely different system of treatment of the insane, a complete reversal of opinion and practice having taken place. Therefore I hope it has not been uninteresting or unprofitable to recall, as we have done to-day, the history of the movement in the very place of its birth, and where it was cradled with so much thought and fatherly care—the benefits secured by this remarkable reform not being restricted to time or confined to the narrow locality from which it sprang. The progress may seem to have been slow and intermittent, being often impeded by those who ought to have pursued a more enlightened course, but considering the amount of ignorance and neglect, and the time-honoured opinions which had to be exploded, the beneficent change in which all good men rejoice has been effected in a



comparatively short period. But here let us be on our guard. There is such a thing as a true and genuinely humane movement against shameful abuses, while on the other hand there is a fussy, intermeddling philanthropy which is as different from the former as the true coin of the realm from the counterfeit. There have been occasions in later times when the pendulum of lunacy reform has swung a little too far, and mischief as well as good has unfortunately been done to the very classes for which such movements (sometimes originated by hysterical agitators) have been ostensibly and ostentatiously promulgated. These popular outcries, when ill-founded and, therefore, unjust, are calculated to have the effect of discrediting attempts at reforms when they are really necessary as they were when the Retreat was instituted. But so it has ever been in the history of all philanthropic movements. There have been uncalled-for and feeble imitations of some great original work, and in the minds of too many people the one is mistaken for the other. A pseudo-humanitarianism has ended in making lunacy legislation vexatious, and calculated to interfere with the prompt care and unfettered treatment of the insane by the asylum physician, whose thoughts are diverted by such means from proper scientific work into that which, as General Sherman would have remarked, carries us back to the day when our mothers taught us the Book of Numbers.

It is a great gratification to me to be able to take any part in this celebration. The Retreat is associated with my earliest recollections. My interest in insanity was inflamed by what I saw and heard respecting the patients here when a boy, and I was mainly influenced in the choice of the medical profession by the desire to be connected with this Institution, and it was within its walls when I was on the medical staff that I was able to find the materials necessary for the preparation, in conjunction with my friend, Dr. Bucknill, of the "Manual of Psychological Medicine." These details are, of course, of infinitesimal importance to anyone but myself, and I only mention them as reasons why I myself should feel indebted to the Retreat. My reminiscences before, as well as when, I resided here, include very definite memories of the Allises, Dr. Williams, Dr. Belcombe, Dr. Thurnam, the Clanders, and last, but by no means the least worthy, Dr. and Mrs. Kitching, whose sons, I am glad to see, are with us to-day. All had their several and particular merits, their especial characteristics, and if, being human, they had their imperfections, they possessed qualities which in their different ways were of lasting benefit to the Retreat.

It was long after my own connection with it that Dr. Kitching was succeeded by Dr. Baker, to whom it must be a great satisfaction to know that his work here is appreciated, and that he can hand over the management of the institution to his successor in so satisfactory a condition. It is a satisfaction to those also who have its welfare at heart to know that he will, as Consulting Physician, be still associated with it, and will no doubt initiate Dr. Bedford Pierce into his new office much as William Tuke did George Jepson. I am sure we all desire for Dr. Baker many years of health after his long and faithful services, while for Dr. Pierce we wish a most successful career, honourable to himself and of advantage to the Retreat, animated, as he will be, I hope, by the inspiring memories associated with its past history.

It ought to be gratifying, I may add, to those connected with the Retreat that the Medico-Psychological Association of Great Britain and Ireland has decided to recognize the importance of this Centenary by holding their Annual Meeting in this city in July, and by making the Medical Superintendent of the Retreat the President on the occasion.

I had intended to offer an apology for having so frequently referred to my own ancestors in connection with its history, but I am assured that this is not necessary. The truth is, I found it to be inevitable if I gave any history at all. It naturally happens that family traditions and papers have given me special facilities for preparing this sketch. I may, indeed, employ, in view of the philanthropic movement we celebrate to-day, the language of the Psalm, as paraphrased in what De Quincey called the Divine Litany of the Church of England:—"O God, we have heard with our ears, and our fathers have declared unto us the noble works Thou didst in their days, and in the old time before them;" they looked forward in faith and hope; we can look backward and can witness to-day the fulfilment of their hopes. Those who have listened to their words may well be incited to follow in their footsteps. The lesson is surely writ large and clear in the early history of the Retreat, that not only ought cruelty and neglect in the treatment of the insane to be exposed and denounced, but that those who would reform abuses ought to show a more excellent way. May the course of the future history of this Institution be one of continuous progress, inspired by broad and generous ideas, while conducted on the same humane lines which marked its early life!

*Influenza and Neurosis.\** By GEO. H. SAVAGE, M.D.

Griesinger says: "The onset of psychosis after influenza follows in all cases after the disappearance of bodily symptoms, and when the increased temperature has passed off. The character of the psychosis varies from slight to profound depression, hallucination, typical maniacal disorder, and the like."

"In all cases the bodily ailment only plays a part as cause of the disorder, it being on the one hand a predisposing cause, a reduction of nervous or bodily power of resistance; or on the other, the last shock to upset an unstable system. There is no simple and special neurosis depending on influenza alone, but various forms of neurosis may arise in predisposed subjects. Influenza alone does not produce insanity." The above is the opinion of the editor of the last edition of Griesinger, and in the main it sums up my experience.

I shall not occupy your time in considering the various theories of the causation of the disease; it must suffice for me to say that it produces nervous complications much more commonly than do the continued fevers, and the resulting disorders differ greatly from those following such fevers. Its effects most resemble those following diphtheria, though in many ways the symptoms resemble those depending on syphilis or lead poisoning.

It appears to attack the nervous system in those who are already failing along the nervous lines, as well as in those who by inheritance or acquisition are nervously unstable.

Thus the grave neuroses have in my experience been most common in persons who from excess or injury have damaged nervous systems, in those who showed signs of senile nervous changes, in those who had been alcoholic, or had suffered from constitutional syphilis, or in those who had had previous attacks of insanity, or had suffered from allied neuroses.

In my experience, too, the attack of mental disorder produced by influenza has resembled previous attacks which have occurred in the same person from other causes. Thus a patient subject to recurrent mania may have an attack produced by influenza, and another who has had previous attacks of melancholia may suffer from mental depression as a result of influenza.

\* Paper read at the Quarterly Meeting of the Medico-Psychological Association, Bethlem Hospital, May 19, 1892.

Influenza occurring in predisposed subjects may give rise to psychosis *directly* or *indirectly*. The nervous symptoms may follow directly on the influenza, or may follow on disorder of the bodily functions; in some patients very grave nutritional disorders arise, there may be gastro-intestinal irritation causing sickness and purging with exhaustion, leading to mental disorder; profound alterations in the circulation also occur, and in most of the insane patients I have found marked deviations from health in the pulse rate. There is anæmia in some cases, and disorder of the menstrual functions in others; syncopal attacks have been met with, and some seizures which were more epileptic than syncopal have occurred at the onset or during the progress of the mental disorder.

After influenza various nervous symptoms may arise pointing to implication of the nervous system, and these symptoms need proceed no further, but, on the other hand, they may be the starting points of more developed mental disorder.

We all recognize *sleeplessness* as one of the most marked symptoms of mental disorder, and this symptom has been in my experience very frequent with and after influenza. This may rapidly lead to other symptoms of nervous instability and malnutrition; next to sleeplessness, *neuralgia* has been the most common complaint, and it is interesting to notice that this has generally picked out the nerves which have previously suffered, or which have already some irritant affecting them. Thus the patient who has had sciatica has a recurrence of this, while the sufferer from "muscular rheumatism" has a return of this pain, and the patient with an exposed dental nerve will suffer in the various branches of his fifth nerve; the alcoholic and the ataxic patient will suffer from peripheral nerve pain. Rarely, however, does the sufferer from migraine have this started by influenza, and I shall refer to this fact again later, nor have I found that the epileptic has any increase in the number or severity of his fits, but I need the experience of general asylum men to verify or correct this statement.

Besides nerve pain there *may be loss of power*. In some cases rather rapid general paralysis has developed, and in others there have been paraplegic symptoms, which have in the end passed away completely; in such patients there has been loss of power in lower limbs and defective control of bladder and rectum.

*Various forms of insanity may follow influenza*, and there is no direct connection as a rule between the gravity of the influenza and the neurotic sequelæ.



In some cases, however, with influenza there has been delirium with the increased temperature, and this delirium has given rise to acute delirious mania.

I have seen several such cases, in some there being further complications, such as the parturiant state or alcoholism. In some the acute delirious mania has proved to be the acute onset of general paralysis of the insane.

Other acute forms of mental disorder have been met with following the acute stage of influenza; thus acute delirious melancholia, acute stupor, and acute delusional insanity, the last being in many respects like some of the more ordinary forms of acute confusional insanity, which may occur after the continued and other fevers.

In such cases after a sharp attack of influenza the patient, who generally in my experience has been young, has a period of sleepless restlessness, which is followed by a state of general mental confusion, the patient looking and acting as if he were in a dream; his whole attention is occupied by subjective sensations, and it is difficult to get him to attend to what is said to him; such cases generally have an irregular and often a rapid pulse.

Though acute mania, ranging from delirious mania to simple emotional disorder, may follow on uncomplicated influenza, yet in my experience a very large number of cases of mental breakdown have occurred in patients who have had pneumonia, or who have had other attacks of influenza.

Though any form of mental disorder may occur, mental depression, with various forms of melancholia, have been the most common. This depression almost always begins with sleeplessness, there is loss of appetite, and very commonly associated there are marked suicidal tendencies. A very large number of suicides during the past year have had influenza as one cause.

The melancholia may come on almost at once, but more frequently follows the influenza after some interval; so much has this been the case that very often the connection between the two has not been evident. Yet I believe the real relationship may be made out by linking the neurotic symptoms which arose with the influenza with the earlier signs of psychosis. Here, again, I would call attention to the frequency with which I have met a rapid pulse and a rather hot, dry skin in these melancholic patients. There is no special form of melancholia related to influenza, and though the majority of such cases recover they have been very tedious, and not without danger both to life and mind.

Such patients have often succumbed to a second attack of influenza, they seeming to be too much depressed vitally to overcome a second severe illness. All degrees of mental stupor have been met with, and though slow in their progress have generally ended satisfactorily.

The acute delusional cases have frequently led to the idea that the hallucinations and delusions must have been of long duration, and have thus given rise to an unfavourable prognosis which has proved to be wrong. A fair number of "nervous" patients have, after an attack of influenza, proved to be true cases of delusional insanity, and have remained subject to delusions of persecution and the like. Among such cases I have met several women who about the menopause have become insanely jealous or suspicious.

Though less favourable, such cases may recover. The most serious effect of influenza has been the starting into activity symptoms of general paralysis. In one case a youth after a neglected attack of influenza developed what Clouston has called developmental general paralysis, there having been no signs of the disease before. This patient came of a very unstable family.

In more instances, men of about 40, who were already showing signs of nervous wear, rapidly developed the symptoms of general paralysis after an attack of influenza. This was specially seen in men who had suffered from syphilis, alcoholism, injury, or had had great worry. The course of the disease was in no way modified by the cause.

Epileptic fits have been started by influenza, but I cannot give any case in which the epilepsy has become established as a result of the disease. In the same way glycosuria and possibly diabetes may follow on an attack of this disorder.

It has been said that the onset of influenza may modify mental symptoms in patients already insane. I have seen only a very few such cases, and the modification of the symptoms has been temporary only. On the other hand, I have met with some interesting cases in which neuroses of long standing have been for some time relieved thus; I have met with two cases of nervous deafness in which the deafness passed off with the influenza, though I must own that in more cases temporary deafness followed the disease.

I have also seen cases of spasmodic asthma relieved for the time, and in one or two patients who have suffered from migraine this symptom has not recurred after the attack of influenza, but one must wait for some time before one can look upon these as more than temporary reliefs.

And now, gentlemen, to conclude, the object of this paper was rather to obtain the experience of you who have had such good opportunity for seeing the effects of this epidemic in different parts of the country; many of you have, doubtless, had some experience in yourselves of the depressing effect of the malady, and may be able to contribute to the general stock of knowledge, and give some useful hints on the pathology and treatment of a disease which has rightly been called a pest.

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*Some Points connected with Criminals.* By JOHN BAKER,  
M.B., H.M.C. Prison, Portsmouth.

Of late years considerable attention has been directed to the science now commonly alluded to as criminal anthropology. The workers in this field have been mainly continental alienists, notably the Italians, of whom one of the most prominent is Professor Lombroso; and the writings of Mr. Havelock Ellis have brought the subject into prominence in this country.

The main conclusions of the Italian school are that the born criminal is a being who, by reason of a combination of bodily and mental peculiarities, belongs to a distinct type, that he is morally insane, and, therefore, ought not to be punished as a responsible, but treated as a diseased individual.

These views have met with opposition from several German authorities, amongst others, Kirn and Lutz, and it is probable there will not be found many in this country disposed to accept them in their entirety, for, as Morrison states in "*Crime and its Causes*," it has not yet been proved that criminals present any distinct physical conformation, nor can it be established that their mental condition is one of insanity or verging on insanity, although, taking them as a whole, the criminal classes are, it is quite true, of a humbly-developed mental organization.

Anyone who is acquainted with prison life cannot help being struck with the fact that there is a gradual descent in the mental scale from the occasional criminal, whose crime is the result of imprudence or misfortune, to the insane criminal, who is the victim of positive mental disease. Judging them, therefore, according to the measure of their mental capacity, they may be broadly divided into four classes:—(1) The occasional criminal, who is, to all intents

and purposes, sane; (2) the born or habitual criminal, whose intellect is sound, but whose moral sense is more or less perverted; (3) the essential or natural criminal, who is, to a greater or lesser degree, intellectually and morally weak; (4) the insane criminal.

The various groups have no very distinct boundaries, but merge the one into the other. Linking the occasional with the habitual criminal is the professional criminal *per se*. With him it is surely a matter of calculation whether honesty is or is not the best policy; his gains are usually large, and he is quite prepared to undergo varied terms of imprisonments, regarding them fully compensated for by the periods of licentious liberty he now and then enjoys. His intellect is, as a rule, unusually keen. He is a criminal from choice.

As regards the habitual or born criminal, the case is somewhat different. In him, also, the intellectual faculties are usually good, but he frequently presents a perverted condition of the moral sense, which may best be described by the term moral obliquity. One of this class, on leaving prison, recently informed us that he would probably soon return, as he could not resist the temptation to steal, or, to use his own words, "I can't help it, sir; it's a maniar's upon me." Now this man was a clever tradesman and could easily have earned an honest living. The term mania employed by the convict, although expressive, was yet too strong to apply to his condition, for mania implies disease; but the craving "upon him" was not due to disease, but to a gradual perverted development of the moral sense. In some cases this moral obliquity is latent, it is hereditary, and becomes more and more intensified by education, habits, and surroundings. When quite young such persons embark on and continue in a course of crime, encouraged by the approval of elders and stimulated by the applause of companions. Bad these men are, but surely not mad in the strict sense of the term. We have not educated ourselves up to that point where we can say of the habitual criminal that he is morally insane, and, therefore, irresponsible. Different men display special aptitudes for different occupations; in some cases this mental development exists in a high degree, and because it takes the higher intellectual, instead of the lower moral direction, we call it genius, and recognize it as a gift, the result of an innate brain power. So it is with the born criminal; he displays an aptitude,



sometimes a genius for crime, but genius of this sort is not insanity, and, therefore, he must be held responsible for his wrong-doing. Plunder and gain are the objects he aims at, and there is method and plan in his operations, in which respect he differs from the weak-minded criminal, who displays little of either. In weak-minded criminals the mental defect assumes the form of both intellectual and moral weakness, the predisposing causes being a degenerate heredity, congenital defect, head injury and nervous disorders, *e.g.*, epilepsy. In such cases we approach more nearly the insane, and the question of responsibility becomes more difficult to answer; undoubtedly there exists, to a certain degree, a state of disease in the form of intellectual defect, more or less severe in different cases, and the moot point comes to be how far their offences are excusable, owing to the presence of this condition. On the mere dictum of a knowledge of right and wrong, they cannot be held irresponsible, yet it cannot be gainsaid that in many cases their crimes are the result, indirectly, at least, of the mental defect under which they labour.

Such individuals, when uncared for and left to struggle for existence, are cast aside in the busy world, and failing to find a means of subsistence in competing with others, almost of necessity have recourse to acts of an anti-social nature. Many find their way into asylums, but there exists a residuum which furnishes part of the prison population. According to Ellis, Marro, in Italy, found, amongst 500 prisoners, 4.2 per cent. of deficient intellect. In a population of 840, we found the percentage 2.5 per cent.; on the majority, sentence had been passed for repeated acts of petty larceny, the others had committed still graver crimes, *i.e.*, rape, arson, bestiality, manslaughter. When such persons are brought up for trial for minor offences, little interest is felt in the accused, and, as Mr. North has stated, except in cases of murder, where the sanctity of life is in question, their mental condition is seldom the subject of inquiry, offences of a less atrocious nature committed by such people rarely attracting attention, yet the same principles are applicable to many other forms of crime." . . . These remarks are applicable to the case of a man who was twice convicted of arson. There was a history of brain disorder in childhood, and one of his children was imbecile. On the second occasion the jury recommended him to mercy, on the ground that he might be of weak mind. The Court called no medical evidence in support of the recommendation, but was

content with the testimony of two lay witnesses, who said that the prisoner's manner and conduct were consistent with sanity. Were the individual psychological peculiarities of these weak-minded criminals strictly investigated, and their modes of life and family histories fully inquired into, the question of responsibility might be more frequently raised in their cases.

These natural criminals make bad prisoners; they are, as they express it, frequently "in trouble." They are extremely credulous, and are easily imposed upon by stronger-minded criminals, and induced to break established rules and practise malingering. Malingering is carried out in three different ways—either by inducing disease or inflicting self-injury, by feigning symptoms which have no real existence, or by pretending continuance of genuine disease after recovery has taken place. Amongst the weak-minded factitious injury is the most common form, as they possess little initiative power, and are incapable of contriving and carrying out any sustained course of feigned illness. With weak inhibitory will power, with a disinclination to work, and urged on by others, they have been known to sacrifice a limb in a moment of impulse. This self-injury was carried out to a marked extent in one case. The prisoner, whose family history showed both insane and phthisical tendencies, sustained concussion of the brain at the age of 19, owing to a fall from a horse. He was sentenced to penal servitude for placing a sleeper on the rails, but had previously undergone various terms of imprisonment for larceny, drunkenness, desertion, and arson. Whilst undergoing sentence he placed his arm under an advancing waggon, which crushed the limb, and necessitated amputation. At a later period he almost severed his tendo-achillis, and on another occasion he induced a severe attack of cellulitis by inserting pieces of copper wire into his leg. This is a very exceptional case, but it certainly points to a depraved and degenerate condition of the nervous system.

It occasionally happens that weak-minded prisoners feign insanity; rarely does this take the form of delusional monomania, but rather of simulated mania, alternating with periods of melancholia. They sing and shout, use filthy and obscene language, tear their clothing, smear their persons and cell walls with excrement, and conduct themselves generally in an extravagant manner, more especially so when they know they are being observed. We can remember one case of a prisoner of a low type who was in the habit of dashing his forehead against the walls of the padded cell

whenever he heard anyone approaching his cell door. However, he soon gave up the practice, and confessed his imposture. When they are physically incapable of keeping up the excitement any longer they proceed to the other extreme, and maintain a sullen demeanour, refusing to speak, and sometimes to eat, and so the cycle runs on until they give it up altogether, when it is by no means uncommon for them to confess they were acting at the instigation of another prisoner. It sometimes happens that even after confessing that they had been malingering a repetition of the same symptoms is indulged in. This may be accounted for in that they are stung by the taunts of their fellow prisoners on being detected.

Deteriorated mentally, many of these weak-minded criminals are degenerate physically. The following are the results of the examination of 25 such individuals (males):—

Their family histories showed the following record:—A tendency to alcoholism in seven instances, to insanity in five, to epilepsy in two, to phthisis in seven. Criminals as a rule, judging from post-mortem evidences, are extremely prone to tubercular affections. Ten had undergone a previous sentence of penal servitude, and 22, including the former, had been in prison for shorter periods, 23 were addicted to drink, six had suffered from syphilis, one from meningitis, two from rheumatic fever, six suffered from epilepsy (four acquired and two congenital), five had varicose veins, one heart disease, one hemiplegia, and one showed a peculiar condition, viz., marked atrophy of the scapular muscles.

The height ranged from 5ft.  $\frac{3}{4}$ in. to 5ft. 10in., but the average only reached 5ft.  $3\frac{1}{4}$ in., showing a stunted growth. The body weight on reception into prison varied from 116 lbs. to 154 lbs.

No safe diagnostic evidence of the criminal nature can be evolved from head-measurements, or from the shape of the cranium, yet in the majority of these 25 cases the forehead was generally low, ranging from  $1\frac{1}{4}$ in. in the lowest type to  $2\frac{1}{4}$ in. in the higher; the epileptic men showed a larger expanse of forehead than the others. The measurements of the antero-posterior curve varied from  $10\frac{3}{4}$ in. to  $13\frac{1}{2}$ in., and those of the circumference from  $19\frac{1}{2}$ in. to  $22\frac{1}{2}$ in. In 13 cases the orbits were large, and in the majority the frontal sinuses and zygoma were prominent. As a rule the lower jaw was weak, but in four of the epileptics massive and square. Perhaps the most remarkable, and certainly the most signi-

ficant, feature about the head was the frequent abnormality of the palate. In only six cases could it be called normal; in the remaining 19 it was more or less contracted, assuming a V shape in five, saddle shape in two, and in the rest the dental arches were approximated on a more or less narrow, flat roof. In 12 the mammæ were but ill-developed. Seven presented marks of tattooing, the designs representing love, religion, nautical subjects, etc. We cannot think that tattooing has any special significance as regards criminals generally, for it is mainly found on those men who have either been soldiers or sailors. The proportion of large and small ears was about equal. The hearing was generally good. In only three instances was it defective, and that not to a marked degree, whilst in seven cases the eyesight was weak. The patellar reflex was exaggerated in one man, and deficient in seven, markedly so in one case, where there was defective co-ordinating power of the lower limbs. Sensibility was in most of the cases dull, but this holds good in criminals as a rule. They bear pain well. The cause of all this degeneracy, both mental and physical, is doubtless that of a tainted inheritance, brought about by a combination of drink, insanity, phthisis, and syphilis. It is not an easy matter for such individuals to obtain employment, even if they wished it, and they naturally fall into crime. The measure of their responsibility ought to be judged by a careful examination into their modes of life, family histories, and individual psychological peculiarities. It is the duty of society to protect them, to make provision when necessary for their mental state to be inquired into at the time of their trial, whatever the nature or extent of their crimes, for if left to themselves, their end in most cases is a felon's grave.

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*Public Asylum Dietaries. Ought they not to be more varied?*  
By J. A. CAMPBELL, M.D., County Asylum, Carlisle.

I touched on this subject in a paper that I published in our Journal in 1883, and mentioned several changes which I had introduced into the diet scale of the asylum I have charge of. I suggested that an expression of opinion of various asylum physicians would be useful, and might with advantage appear in the columns of this Journal. Dr. Rayner, in the Presidential Address to our Society for 1884, made remarks somewhat resembling those I refer to, and called attention to the difficulties that exist in comparing



diet scales, owing to their inaccurate and faulty construction, and instanced the diet scale of the asylum in which he acted as an illustration in point. In offering some remarks on asylum dietaries, I at once state that I do not consider my mode of dealing with the subject as at all complete or exhaustive—access not only to facts which I cannot possess myself of, but also an extended series of observations would be required to enable one really to deal with the subject as its importance merits. A paper such as I present is merely suggestive.

As I am perfectly aware that the tendency of the age in which we live is to extremes in everything, I think it only proper to say that I individually hold no extreme views of my own on diet matters, and I think I am thus the better able to discuss the subject in a manner free of prejudice.

Physicians must often be struck by the extraordinary opinions they hear from otherwise clear-headed and educated people as to the nutritive powers of various diets. My experience goes to show that many people hold the idea that except from animal food you do not produce vigour, strength, or activity, and the idea that any other food tends to health or longevity is rather scouted. Yet we all know that in the animal kingdom the swiftness and power of the horse, the strength and endurance of the camel, and the immensity of stored force and intelligence as well as the capability of longevity combined under the wrinkled hide of the elephant are all produced by a vegetable diet; while the power of withstanding cold is possessed to the highest degree by the reindeer and musk ox. The different diets in use in different lands would well merit a full consideration, and might furnish useful hints; but unless viewed along with the death-register, and certain *data* concerning sickness which at present are unattainable, would not be of real value. The general results, however, go to show that stature, bulk, longevity, and a fair amount of vigour, physical and mental, and an unexpected amount of resistance to cold may all exist in persons whose food is almost entirely vegetable, or, with more strict accuracy, in persons who only at rare intervals are flesh consumers. I may instance the Arab on his bread and dates; the Spaniard on his bread, cheese, onions, and wine; the Hindoo on his rice and ghee; the Japanese on fish and rice; while the monks of the monastery of La Trappe du Pont du Salut, according to the account\* of

\* "Good Words," 1884.

Surgeon-General H. L. Cowen, take but one meal a-day and a slight refection, only eat milk, cheese, vegetables, and light beer, and for periods extending over months don't even use milk. "When a Trappist consents to eat meat he is at death's very door." Yet Dr. Cowen tells us they enjoy good health, and that three score years and ten seems to be the minimum of life at La Trappe.

Speaking generally, most people eat too much. Few people, who are at all well-to-do, as the phrase runs, retain up to 40 even symmetry of form. People who have lived many years, and who have been observant of habits and customs, assure me that they have noticed a marked and steady change in the diet of the working classes, a general improvement, and an increase in the animal food consumed. Many insane patients eat far more than is good for them. I dealt with the subject of the appetite in insanity in the "Journal of Mental Science" of July, 1886, and I then pointed out that in certain forms of insanity, more especially in certain stages of general paralysis, where voracity and a tendency to lay on excessive fat exist, it is well to restrict the food, or to give a bulky though less nourishing diet.

The prevalence of gall-stones in asylums points, I think, strongly to too much food and too little exercise. Out of 357 post-mortems I found gall-stones present in 28 cases, a percentage of 7·8. Haller\* states that of 230 bodies dissected, in 14 were biliary calculi found, a percentage of 6·8, and he thought at that time that the climate of Göttingen fostered gall-stones. It is admitted that gall-stones are more frequent in females than in males; in my observations they stood as 18 to 10. Of course, it may be said that the apparent frequency of gall-stones in asylums is due to the age at death, for an asylum population in this country is almost entirely composed of aged and adults. I, however, think that asylum life tends to produce biliary calculi, and I know that they are proportionately more common in the case of patients who have had a long asylum residence than in those who die shortly after admission.

I think it is quite admitted that insanity is in most instances a disease of debility and deterioration of physical condition. Out of 500 sequent cases admitted into this asylum under 65 years of age, 109 were in weak bodily health. Dr. Macphail, in his careful and extended series of observations, clearly shows that in insanity the blood con-

\* Haller, "Opus Pathol.," p. 77.

stituents are below that of sanity. I, however, believe that in cases of very acute and persistent excitement, as well as in certain cases of melancholia, the absorbents often fail to do their duty; and feed such cases how you will, the nourishment placed in the stomach and intestines is not taken up. I believe this is, in truth, the explanation of the tolerance that certain cases exhibit to heavy doses of narcotics and to noxious substances, such as laburnum seeds, which are known to have been picked and eaten by patients during attacks of excitement. I think this theory probably accounts for the absence of ill effects in those patients whom Dr. Clouston describes as taking a dozen eggs and seven pints of milk a-day, a diet by which most healthy people would be made what is called bilious. I certainly have had melancholics under my care who, although frequently and carefully fed with nourishing and easily-assimilated food, have yet become weaker, and have died without apparent lesion. I have also seen death occur during an attack of very acute excitement in a highly-nervously organized young woman without apparent cause except exhaustion from want of assimilation and absorption of nourishment, and in this case I administered food frequently with the tube, and at death found it unchanged in the stomach and small and large intestines, and found them much dilated, as if they had entirely lost their nerve tonicity.

In English public asylums the power of regulating the diet rests with the Committee of Visitors, the medical staff, of course, having power to order such extras as seem necessary; and I think in most asylums an ample ordinary diet, with certain extras on given days for the recent cases, the sick and aged, is the rule. It is, however, quite possible that remarks by the Visiting Commissioners in Lunacy, as to special meals or the absence of given items, might easily produce a feeling that in any given asylum patients were not well fed; even an expression by the Barrister Commissioner alone might produce this, and yet several members of the same body may have totally different views, or a body which changes as years go by, might see fit to change their views. In the meantime, a superintendent who advised some given change from a stereotyped scale might, at least, find himself at variance with the opinions of some members of a body who always must strongly influence the public as regards asylum treatment. This

should make any sensible medical superintendent consider the matter gravely before he made any great radical change in a dietary. The Committee of Visitors of the Cumberland and Westmorland Asylum, in arranging their diet scale when this asylum was started, wished to make it resemble in certain respects the accustomed food of the population in the district, and as it was not an habitual beer consuming population they decided not to make beer an article of diet. The absence of beer in the diet scale was touched on in each report from 1862 to 1865 by the then Commissioners; yet the general consensus of opinion now is that beer is not required as an article of diet, and it has been disused in the majority of asylums. Rhubarb with milk and bread and cheese have been given here for nearly 30 years as a summer dinner, and it is much liked by the patients; yet I have known it commented on as an unsuitable dinner, and mentioned disparagingly in a report. I do not make these remarks at all in a captious spirit, for I quite see that there must always exist a variety of opinions on every known subject, and many circumstances may make people see things in different lights.

Though in some parts of Great Britain the variations in temperature between winter and summer are, as a rule, slight, yet in other portions there is a very great change indeed in the mean temperature, and this change would, I think, warrant, on general principles, a change of diet during the hotter months of the year. In winter we all increase our day clothes and our bedding, and keep our rooms warm, and we naturally have a better appetite for fat meat and heat-producing food generally; in summer our appetite generally tends to the consumption of salads, green vegetables, and fruit, and less animal food. Yet, so far as I can find out, very little change occurs in the dietaries of our public asylums, or, if a change does occur, it is not noted on the diet scale.

We all see to the patients being more warmly housed, clad, and bedded in winter, and in most asylums the diet scale is ample, though monotonous; but should we not also provide for summer requirements? If we give an excess of heat-producing combinations we may only be producing restlessness, discomfort, and excitement in our patients. By giving a proper quantity of clothing by night and by day, and by housing warmly, undoubtedly one prevents in the human frame calls for so much food and for so much heat-



producing food, and by not requiring too much physical or mental exertion a good health standard can be maintained more easily on a diet much less nutritious than when exposure to cold and hard labour are exacted. So that, speaking generally, the chronic element of an asylum might quite well exist, and that comfortably, on the same diet that the working-class in the district from which they come exists, and being more warmly housed, and dealt with in large numbers, they ought to be more cheaply fed. Yet, I am sure, the average cost for food for each individual patient in the English county asylums is more than is expended on himself by a labouring man who receives, say, £1 a week, and who has to keep himself, a wife, and family on it.

I am certain from experience that good results follow from specially dieting patients who have certain forms of insanity. I merely mention this in passing. Violent, irritable, and quarrelsome patients become more tractable when put on milk diet and their animal food is stopped for some weeks. I do not think broth and soup is sufficiently used in most English asylums, or in fact by English people. In Scotland broth or soup is almost a daily portion of the dinner, and, I believe, to this difference in diet is due the want of abdominal protuberance—the comparative immunity from constipation, piles, and hernia in the Scotch asylums.

Circumstances and distance from the coast prevent the use of fresh fish in asylums to a certain extent, but why should not salt fish occasionally be used? I think the subject of asylum dietaries is of such importance that it would be advisable to have a committee of our society to consider and report on the matter, to draw up a week's diet scale, and to give a list of supplementary dinners, which could be substituted at will. The information, now in the possession of individuals, would be then accessible to all, and an expression of opinion by a competent committee on certain points would be practicably unquestionable. I would indicate the following as some of the points which should primarily receive attention, and on which a definite opinion should be expressed:—

1. How many days a week should butcher meat be given in winter?
2. How many days a week should butcher meat be given in summer?
3. What amount of cooked meat, free of bones, in summer and winter, would be required to maintain the chronic asylum residents in fair health?

4. Does soup or broth occupy the position it should in asylum dinner scales?
5. Are farinaceous and milk compounds sufficiently valued as asylum foods?
6. Do not potatoes from convenience, cheapness, and habit tend to exclude the use of other vegetables to the detriment of health?
7. Is not the use of cooked fruit a matter to be more looked into now that its price allows of its freer consumption?
8. In what form can fish be rendered most serviceable and least dangerous as an asylum dinner?

It is admitted by all reasonable people that a mixed diet is not only indicated by the formation of the human teeth and the natural instincts and appetites of our race, but the experience of ages goes to prove that the more varied with judgment our diet can be, the more healthy and vigorous both body and mind may continue, and the more pleasant may life be, for although eating may not in itself be one of the chiefest ends to live for, yet its results are such that wise people should give it proper consideration if they wish to remain wise. Those entire vegetarians that have come under my observation have struck me as dull, quiet, and wanting in vigour of mind and body, inclined, in fact, to a mild melancholic state. Excessive flesh eaters are irritable, choleric, and apt to be non-resistant of disease. I have not myself had a large experience of those who mainly exist on fish and cereals or vegetables, but in a very excellent article "On fish as a food," which is contained in *Temple Bar* for June, 1891, the following statement appears: "No fishing community, so far as is known to the writer, has given to this world a great man. Men of mark, poets, preachers, lawyers, warriors, philosophers, and physicians have emanated in Scotland, at any rate from all classes except the fishing class."

I have looked over a return got up and lent me by Dr. Murray Lindsay, from the diet tables of forty English County and Borough Asylums. I propose at present to confine my remarks mainly to dinners, as this is the principal meal of the day. This return shows a marked disparity in the amount of butcher meat given in different asylums. I, however, do not intend to enter on a discussion as to the relative excellences of the various scales; in my opinion they all show sufficient quantity of food—some of them, I think, an excess of animal food, especially for a summer diet.

The diet scale at Garlands, examined and estimated,

shows the following, that the patients get butcher meat five days in the week, soup one day, and dumpling another. The total quantity of cooked meat which each male patient gets weekly is 23oz. The butcher meat which is consumed by patients shows that each male gets an average of 28oz. of raw meat with bone, and in addition 5oz. of tinned compressed corned beef weekly. My intention has not been to deal with this subject from the chemico-physiological aspect, but merely from the practical view-point of giving a dinner amply sufficient for health purposes at a moderate cost, with a possibility of changes at even a less cost than the fixed scale, that is, to give an optional or supplemental list of dinners which could occasionally be brought into use at a slightly diminished cost to make up for the trouble which the change would entail. I think everyone will agree with me that to know beforehand the rotation of dinners day by day, week by week, running on for years even, must be one of the most intense hardships of an enforced asylum residence; even an inferior dinner, which is a change, would be esteemed as a luxury, and a surprise dinner at intervals would be even more of a luxury. Here we give pickled cauliflower, beetroot, onions, and red cabbage, with mustard as a condiment on the cold meat days. We show an allowance of 12oz. of cooked vegetables on the diet scale, and, as far as possible, we try to give with potatoes, cabbage, or greens, carrots, turnips, parsnips, leeks, beans, and lettuce and radishes in season. When vegetables are scarce we give a ration of pease-pudding or haricot beans with potatoes. A ration of pease or beans such as we give costs  $\frac{1}{2}$ d.

That our present diet is ample, I think our returns clearly prove. For 19 years our recovery rate has averaged 44·8 per cent., while the death rate during the 30 years the asylum has existed has been 8·04 per cent. on the total average resident. Though, as a rule, the patients admitted here are fairly fed outside, yet most of them gain weight here, and, I believe, considering the exertion they expend, they are over-fed, if anything. I took the ten stoutest-looking men I noticed in the male division and weighed and measured them; their average weight was 206·8lbs., while their average height was only 5ft. 9in. I found they had made an average gain of 23lbs. while here. The stoutest measured 50in. round what should have been a waist. These men look too bulky for their height. The 10 stoutest women average 61·8in. in height, and 182·2lbs. in weight,

and have gained an average of 48·6lbs. while here. Their forms are not sylph-like, though some of them are under 30. I do not believe that asylum patients would have their health lowered if, during June, July, and August, the butcher meat was reduced to four days a week for the men, and three days a week for the women.

I now submit the dinner scale at Garlands, with the cost at present prices as accurately made out as possible :—

		DINNER.											
		Bread.	Meat Pie.	Cooked Meat, free from Bone.	Dumpling.	Irish Stew.	Cooked Vegetables.	Potato Pot.	Broth.	Soup.	Milk.	Cheese.	
		oz.	oz.	oz.	oz.	oz.	oz.	pt.	pt.	pt.	oz.	Cost.	
Sunday	Men.....	3	—	—	—	22	—	—	—	—	$\frac{1}{2}$	—	3 $\frac{1}{8}$ d.
Monday	Men.....	3	—	5	—	—	12	—	—	—	—	—	2 $\frac{5}{8}$ d.
Tuesday	Men.....	7	—	—	—	—	—	—	1 $\frac{1}{2}$	—	—	1 $\frac{1}{2}$	2 $\frac{7}{8}$ d.
Wednesday	Men.....	3	—	—	—	—	—	22	—	—	$\frac{1}{2}$	—	3 $\frac{7}{8}$ d.
Thursday	Men.....	3	—	5	—	—	12	—	—	$\frac{3}{4}$	—	—	2 $\frac{5}{8}$ d.
Friday	Men.....	3	10	—	—	—	12	—	—	—	—	—	3 $\frac{3}{8}$ d.
Saturday	Men.....	—	—	—	16	—	—	—	—	—	—	—	1 $\frac{1}{8}$ d.

**DUMPLING.**—For men, each 9oz. flour, 1oz. currants and raisins, one-sixth of an ounce of sugar, and 2oz. dripping. For women, each 7oz. flour, 1oz. currants and raisins, one-sixth of an ounce of sugar, and 2oz. dripping.

**MEAT PIE.**—For men, each 6oz. of uncooked meat, free from bone. For women, each 5oz. of uncooked meat, free from bone, and seasoned to taste.

**IRISH STEW.**—For 100 persons, 32lbs. of uncooked meat, free from bone, 6st. of peeled potatoes, with a suitable dilution of water, and pepper and salt to suit taste.

**POTATO POT.**—For 100 persons, same as Irish Stew.

**BROTH.**—For 100 persons, 28lbs. meat (necks, houghs, etc.), including bone, 10lbs. barley, liquor from stewed bones, thickened with bread crusts and vegetables, and seasoned to taste.

I also submit a supplementary list with the cost. I have experimentally given these dinners, at intervals, to divisions



of my patients, and they have always recognized the change as agreeable:—

	At present prices.
Tripe 5oz., done with milk and onions and 12oz. potatoes...	... almost 2d.
Bullock's heart 5oz., hashed with 12oz. of potatoes...	... above 2½d.
Bullock's liver 5oz., fried with 12oz. of potatoes ...	... 1d.
Salt cod 8oz., boiled with 12oz. potatoes ...	... 1¾d.
Fish pie, containing 4oz. cod, 12oz. potatoes, 1oz. dripping ...	... 1¼d.
Salt herring, two weigh 8oz., 12oz. potatoes...	... 1¼d.
Fresh herring, two weigh 8oz., 12oz. potatoes ...	... 1¼d.
Hominy and milk 1pt., bread 7oz. ...	... about 1½d.
Rice and milk 1pt., bread 7oz. ...	... about 2d.
Ground rice and milk 1pt., bread 7oz. ...	... about 2d.
Sago and milk 1pt., bread 7oz. ...	... about 2d.
Cornflour and milk 1pt., bread 7oz. ...	... about 2d.
Rhubarb, gooseberries, and stewed apples, and black currant tart 16oz., bread 7oz., cheese 1½oz.	

These last three dinners are subject to much change in price. We use them in summer, and, as the fruit is grown here, we consider it as a dinner cheaper than a meat dinner.

My wish is not at all to reduce the cost of maintenance of rate-supported lunatics to the lowest figure compatible with the preservation of their existence, but to give them as much pleasant variety of diet as is possible at a reasonable expenditure. I have not in my remarks attempted to give facts and figures for all my statements. What I wish is to enlist the co-operation and elicit the opinions of fellow superintendents who are interested in this subject. If my suggestion of having a committee appointed to draw out a diet scale is carried out, I am certain patients in public asylums will benefit by the result.

### *Insanity and Divorce.\** By A. WOOD RENTON, Esq.

In view of the interest which the subject is at present arousing, a critical analysis of the historical development of the law of insanity in its relation to divorce may be neither inopportune nor uninteresting.

The leading case of *Mordaunt v. Moncrieffe* (1874, L.R. 2, Sc. and Div. 374) may be taken as a convenient point of departure. Sir Charles Mordaunt was married to Miss Harriett Sarah Moncrieffe on 6th December, 1866. On the 28th of April, 1869, a petition charging Lady Mordaunt with adultery, and praying for a dissolution of the marriage, was

\* In this paper I do not propose either to state the evidence in *Hanbury v. Hanbury*, or to discuss its effect.

presented by her husband to the Divorce Court. Two days later the citation was duly served on Lady Mordaunt, whose solicitors entered an appearance for her, but on a representation supported by affidavit that she was insane, the court on 27th July, 1869, appointed her father, Sir Thomas Moncrieffe, to act as her guardian *ad litem*. Issue was joined on the plea of Lady Mordaunt's insanity, and the question was tried by a special jury, who, on 25th February, 1870, found (and the form of the verdict deserves particular attention) that on the 30th of April, 1869, the day on which the petition for divorce had been served on her, Lady Mordaunt was in such a state of mental disorder as to be unfit and unable to answer the petition and to duly instruct her attorney for her defence, and that she had ever since remained and still remained so unfit and unable. On 8th March, 1870, Lord Penzance, on Sir Thomas Moncrieffe's application, stayed all proceedings in the suit, giving Sir Charles Mordaunt liberty to apply when he was able to affirm that his wife had recovered her mental capacity, and on 2nd June, 1870, this order was sustained on appeal by a majority of the full Court of Divorce. On 12th March, 1872, however, Dr. Harrington Tuke having made an affidavit that the recovery of Lady Mordaunt had become hopeless, Sir Charles Mordaunt applied to the court to dismiss his petition, the proceedings in which had on the former occasion merely been stayed, in order that he might appeal to the House of Lords. The application was granted, and the case came on for argument at the Bar of the House, the following common law judges attending to assist, viz.: Kelly, L.C.B., Martin, B., Keating, G., Brett, J., Denman, J., and Pollock, B. Sir George Jessel, then Solicitor-General, afterwards Master of the Rolls, was leading counsel for the appellant. Dr. Deane, Q.C., and Mr. Hardinge Giffard, Q.C., the present Lord Chancellor Halsbury, appeared for Sir Thomas Moncrieffe. Chief Baron Kelly, Mr. Justice Denman, and Mr. Baron Pollock concurred in holding that divorce may be asked and decreed on behalf of or against a lunatic—the Court appointing a guardian *ad litem* for protection. Mr. Justice Keating and Mr. Justice Brett were of opinion that the insanity of either husband or wife is an absolute bar to divorce. The House of Lords adopted the opinion of the majority of the judges. In *Baker v. Baker* (1880, L.R. 5, P.D. 142, and 6 P.D., 12), the decision in *Mordaunt v. Moncrieffe* was extended to the case of a lunatic petitioner, and it was fully and finally established that *supervening* insanity does

not arrest the progress of a suit for dissolution of marriage whether the patient is petitioner or respondent. The case of Lady Mordaunt did not, however, dispose of the question whether, and if so to what extent, the insanity of a respondent at the time of committing the acts of cruelty and adultery alleged against him would constitute a legal defence to a suit for divorce. This question, although constantly arising in private practice, was brought before the courts judicially for the first time in the beginning of the present year in the case of *Yarrow v. Yarrow* (1892, P. 92). In so far as it is necessary to state them, the facts were these. The parties were married in 1874. Shortly afterwards they went to Monte Video, where the petitioner was engaged in business as a corn merchant, and remained there till 1886, when they returned to England and ultimately settled in Herefordshire. There was no issue of the marriage. On the voyage out to South America the respondent confessed to her husband that before her marriage she had lived an immoral life for two years, and had contracted a disease. Up to the year 1890 they lived happily together, but in that year the respondent's feelings towards her husband underwent a complete change. She came up to town in July, 1890, to consult a doctor, took lodgings in Brunswick Square, and was proved by the landlady to have repeatedly committed adultery with men whom she brought in from the street. The respondent then wrote a letter to her husband, telling him that she had committed adultery, and intended to do so again, and suggesting that he should take proceedings with a view to obtaining a divorce. It appeared that she was labouring at this time under an insane delusion that her husband was endeavouring to poison her, and committed adultery with the knowledge that it might, and in the hope that it would, be the means of bringing about a divorce. Under these circumstances the question arose whether insanity of this description constitutes a valid answer to a suit for divorce. Sir Charles Butt held that *if the analogy of criminal law applied to such proceedings at all*, a point on which his lordship entertained doubt but expressed no positive opinion, then the respondent knew the nature and quality of her act, and that it was wrong within the meaning of MacNaghten's case, and consequently her insanity was no defence to the husband's petition. In *Hanbury v. Hanbury*, substantially the same question arose for judicial decision. In this case Clara Mathilde Hanbury petitioned for the dissolution of her marriage with Ernest Osgood Hanbury, on the ground of his

alleged adultery and cruelty. The acts complained of were scarcely, and at all events were not successfully, denied, and the only material defence was the plea of unsoundness of mind. Sir Charles Butt again expressed grave doubts whether such insanity as would entitle an accused person to an acquittal on an indictment for a crime would constitute a valid defence to a suit for divorce on the ground of adultery, held that, even if these doubts were ill founded, only evidence of "a lasting and abiding disease, something different from recurrent insanity, something requiring permanent incarceration," would support the plea, and left the general issue to the jury in the terms of MacNaghten's case. The jury found a verdict for the petitioner, and the learned judge entered judgment in his favour. The respondent appealed to the Court of Appeal, consisting of Lord Esher (the Master of the Rolls), and Lords Justices Lindley and Kay. The discussion, to which the present writer had the pleasure of listening, pursued the following course. At the outset of the argument, the Master of the Rolls took his stand upon the rules in MacNaghten's case, and finally put to the learned counsel for the respondent, Mr. Lockwood, Q.C., the following question. Suppose that a man under the influence of *folie circulaire*, accompanied, as you say it often is, by an irresistible sexual impulse, outraged a woman? Suppose that he knew what he was doing, and showed that he felt it to be wrong by immediately afterwards leaving the country. What is the law applicable to such a statement of facts? After some ingenious fencing with the question, Mr. Lockwood, who certainly did his best for his client, was obliged to answer, "I suppose it is governed by the *Queen v. MacNaghten*?" One was tempted to regret that the honourable and learned gentleman did not—following the lines suggested by Sir James Stephen—attack the authority and impugn the ordinary judicial interpretation of the rules in MacNaghten's case themselves. But he evidently felt and shrank from such a hopeless task. Lord Esher then proceeded to deliver judgment. Reserving the question whether recurrent insanity can, under any circumstances, constitute a valid answer to a suit for divorce, his lordship, to the obvious satisfaction of a large legal audience, proceeded to criticize *folie circulaire* and irresistible impulses, and then affirmed roundly (1) that scientific evidence, *though* uncontradicted, is not binding on a jury, and (2) that every man who, in committing a culpable or criminal act, knows its nature and moral quality, is responsible to the law whether his mind is or is not



affected by disease. Lord Justice Lindley went even further, and distinctly held that—since the Divorce Court exists for the protection of husbands and wives from each other's misconduct, and since the victim of recurrent insanity could not be confined in an asylum during the intermission of the disease—to allow this species of mental unsoundness to be a defence to a suit for divorce would be to negative the protection that the legislature intended to confer. If this ruling is upheld, the substantive law of insanity and divorce may now, probably, be stated thus:—Insanity is no answer to a petition for divorce unless (a) it prevented the respondent from knowing the nature and quality of his acts within the meaning of the rules in *MacNaghten's case*, and (b) is of such a character as to require the permanent incarceration of the respondent. The authority of *MacNaghten's case* will no longer be questionable in any tribunal short of the Privy Council and the House of Lords; but the *interpretation* of the phrase "know the nature and quality of his act" may still be open to forensic argument.

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*Gall-Stones in the Insane.* By CECIL F. BEADLES, M.R.C.S.,  
L.R.C.P., Assistant Medical Officer, Colney Hatch  
Asylum.\*

Gall-stones are stated to be most common in females of advanced years by all writers on the subject, but is the frequency of their occurrence in such cases fully recognized? There is a further question, one which more immediately affects the medical officers at asylums, and which it is possible to have answered. Do gall-stones occur more commonly in the insane than in others, and is it possible for insanity to have any influence on the formation of biliary concretions?

The second question arises from the fact that in making post-mortem examinations on the bodies of the insane (females), I was early struck by the great frequency with which gall-stones were found, and accordingly commenced to collect them with a view to discover what relation, if any, they bore to insanity. Although my numbers are as yet somewhat small, still I think they may be of interest. I hope, however, that I shall have an opportunity later, with more data to hand, of giving further information on this subject.

\* Paper read at the Quarterly Meeting of the Medico-Psychological Association, May 19, 1892.

Out of 50 consecutive necropsies which I have personally performed on insane females at Colney Hatch, gall-stones were present in 18, that is to say in 36 per cent.

Now this percentage is exceedingly high, and, if maintained, is far greater than what is generally admitted, or, I believe, is possibly the universal case even in very aged women. That gall-stones are often met with in the insane after death is acknowledged by those who have made many examinations, but I know of no reference to this matter in any work on insanity, nor do I believe that insanity is a generally recognized cause of their occurrence. I do not wish it to be understood that I take it for granted, nor am I about to prove, that gall-stones are of a greater frequency in the insane than in the sane, for there are many factors to be taken into account when considering this subject, some of which I propose briefly to mention, although if this percentage were proved to be maintained it would, I think, show that there is some association between the two conditions.

There do not appear to be any trustworthy figures in existence of the frequency with which gall-stones occur whereby to compare these numbers. The most suitable subjects for this inquiry are, of course, the old people dying at workhouse infirmaries, for they belong to the same class as those that form the inmates of a pauper lunatic asylum, and have lived much the same kind of life. The result of an inquiry from the medical superintendents of several infirmaries was, as I had anticipated, that gall-stones in the very aged females were, at most, by no means uncommonly found after death, but unfortunately no record has been kept, and the percentage could not be given. My friend Mr. Dudley Cooper, however, who, whilst he held the post of medical officer at Highgate Infirmary, made over 200 very careful autopsies on men and women, and saw as many again, tells me that gall-stones were present in from 10 to 12 per cent. of the women. This he considered remarkably frequent. They occurred almost invariably in very aged persons. In the men gall-stones occurred in less than one per cent. of the cases. I may add that out of 63 post-mortem examinations made on females at the Cancer Hospital who had died of some form of malignant disease, at an average age of 49, there were only three cases in which gall-stones were found, and it is interesting to note that in each of these three cases the liver was the seat of a primary car-

cinomatous growth. Moreover, although the liver in a large proportion of these 63 cases contained secondary deposits, yet in no other of this series was that organ primarily affected.

None of the medical text books in general use give figures, but Thudichum,\* writing on the frequency of gall-stones, says—

The question about the number of persons, members of a community subject to a census, who suffer from gall-stones, cannot, I fear, be answered. Assertions, therefore, concerning the frequency of gall-stone patients, the prevalence of gall-stone disease in certain districts, among certain classes, at certain times, must be received with great reservation.

A physician who, during forty years, had been engaged in a most active practice, had made notes of nearly eighty cases in which he was consulted or found calculi after death.

Wolff (Virchow's "*Archiv.*," xx., 1) observed 45 cases of gall-stone disease in living persons during a practice extending over forty-three years. Haller ("*Opusc. Pathol.*," p. 77) relates that, out of 230 bodies dissected in the anatomical theatre at Göttingen, two only had stone in the urinary bladder, but in 14 biliary calculi were found.

This last, which is the most suitable for comparison, is little more than six per cent. There can be no doubt but that gall-stones are of greater frequency, at any rate, in the old females in workhouses. But from what has been said I think we may conclude that a percentage of 36 is quite phenomenal. Of course it may be that there has been a singular run of cases, which will not be continued in anything like the same proportion, for it is a well-known fact in medicine, as elsewhere, that cases are apt to occur in remarkable series. Still, it will take a considerable amount of falling off to bring this percentage down to what one might call a more normal point. A remarkable statement, which I only mention for curiosity, has been ascribed to Heberden, that "in England few people attained their fortieth year without having been visited by gall-stones."

The 18 cases in which gall-stones were present are arranged in the accompanying table (pp. 386 and 387).

On referring to the table it will be seen that pneumonia was the most frequent cause of death. The first 10 cases died from complications following influenza. In only two, Nos. 12 and 18, can the end be said to have been sudden.

\* "*A Treatise on Gall-Stones*," by J. L. W. Thudichum, M.D., London, 1863, to which work I am indebted for other observations.

In the whole of the 18 cases, with the exception of Nos. 16 and 17, there was some cardiac hypertrophy and dilatation, although valvular disease existed only in these specially mentioned. In the same cases there was some degree of atheroma of the blood vessels, always marked in the arteries at the base of the brain. In all the cases the kidneys were granular, with the exception of Nos. 5 and 10, where they were apparently healthy. There were no renal calculi present. These remarks apply in a like manner to the remaining 32 cases examined. In the whole of the 50 cases there was some morbid conditions of the brain; all had more or less thickening of the membranes, dilatation of the ventricles, with excess of fluid, either hardening or softening of the brain substance, with, in some cases, hæmorrhages of old date—in short, all the brains were abnormal, and were such as are met with in the insane.

In Nos. 2, 3, and 17 there was no fluid present in the gall bladder, the walls of which were tightly contracted over the stones. In Case 9 the gall bladder contained a clear, colourless, viscid fluid, in appearance similar to glycerine, apparently mucus, about three drachms in amount, and in Case 10 there was a similar fluid, but less in quantity. In the remaining cases ordinary bile was present. The gall bladder of Case 11 was of very great size, and reached down to the umbilicus; it was six inches in length, and was connected to the liver by a cystic duct of equal length. The bile ducts in the liver were much dilated, and were filled with bile. The livers varied much in weight, but were more often considerably below what is usually mentioned as the average weight for that organ in the female, viz., 40-50 ozs. The average of 16 of the cases was a little more than 40 ozs. (No. 13, in which hydatid disease of the liver existed, not being included. The liver tissue in this was much atrophied, and a large cyst, the size of a cocoanut, was present in each lobe). In most of the cases the liver was distinctly fatty, and the congested condition, when present, was probably dependent on the mode of death. It will be seen from the table that, as would be expected, the gall-stones varied greatly in number and character, and, with regard to their composition, cholesterin occurred in not quite two-thirds of the cases, the rest being almost entirely made up of bile-pigment and mucus. From their size many of these stones must have taken a considerable time to form.

The majority of these 18 persons died at a great age; 11



No.	Age.	Bodily condition.	Cause of death.	Form of Insanity.	Duration of Insanity.	LIVER.		Gall-bladder.	Weight in grains when dry.	GALL-STONES.		
						Condition.	Weight in ozs.			Composition.	Character.	
1	75	Emaciated.	Pneumonia and heart disease.	Melancholia.	12½ years	Congested.	35½	Distended.	300	74	Bile pigment and mucus.	Vary much in size; 3 larger ones are an inch in diameter; the rest are small. Triangular, and with facets, vary from 2 to 74 grs. in weight. Of a pale yellow colour. Size of pigeon's egg, with rough surface.
2	55	Emaciated.	Pericarditis and heart disease.	Mania.	½ "	Congested.	?	Tightly contracted over stone.	64	1	Cholesterin.	Measures 2½ in. by 1½ in., oval in shape, and has rough, irregular surface; greenish colour.
3	70	Well nourished.	Double bronchitis.	Recurrent mania.	30 "	Congested.	33½	Entirely occupied by stone.	395	1	Cholesterin and bile pigment.	Size and surface like that of mulberries, but of a yellow colour.
4	60	Fairly nourished.	Pneumonia.	Melancholia.	½ "	Pale and fatty.	41	Not enlarged.	20	2	Cholesterin and mucus.	Size of mulberries, but of a yellow colour.
5	81	Emaciated.	Pneumonia.	Melancholia.	24 "	Nutmeg.	33½	Do.	34	1	Cholesterin	½ in. in diameter, rough, and of a whitish brown colour.
6	51	Well nourished.	Pneumonia and pleurisy.	Recurrent mania.	4 "	Fatty and congested.	40½	Do.	24	4	Cholesterin and bile pigment.	Size of surface as of mulberries; deep orange in colour.
7	81	Emaciated.	Pneumonia.	Recurrent mania.	40 "	Small, fibrotic, and congested.	27	Very small.	90	1	Cholesterin	Size of pullet's egg, 1 in. in length, rough, and dark brown colour.
8	85	Fairly nourished.	Pneumonia.	Senile dementia.	3½ "	Small, congested.	30½	Not enlarged.	9	3	Cholesterin and bile pigment.	Like small mulberries, only of a reddish-brown colour.
9	42	Obese.	Pneumonia and heart disease.	Melancholia.	1½ "	Fatty and congested.	49½	Do.	35	100	Bile pigment.	Very small, most vary from ¼ to ½ grain in weight; half a dozen larger ones weighing about 2 grs., one of which completely obstructed the cystic duct. Dull yellowish-brown colour.

10	72	Fairly nourished.	Pneumonia and pleurisy.	Recurrent mania.	13½ years	Large and fatty.	66½	Small.	60	93	Bile pigment.	Vary from ½ to 2 grains in weight. Yellowish-white colour, with shining facets.
11	70	Much emaciated.	Phthisis.	Mania.	21½	Very small, fatty, congested in places.	20½	Greatly distended.	27	3	Bile pigment.	Of equal size; black shining facets, very soft, and crumble to pieces.
12	53	Fairly nourished.	Meningeal hæmorrhage pneumonia, and heart disease.	Recurrent mania.	9	Large, fatty, and congested.	46½	Not enlarged.	2	7	Bile pigment.	Irregular black masses of pigment of small size.
13	76	Much emaciated.	Heart disease.	Senile mania.	3	Hydatid disease, two large cysts replace much of liver substance.	98	Do.	4	1	Bile pigment.	An irregular black mass of pigment.
14	51	Obese.	Pneumonia.	Epileptic dementia.	1	Small and fatty.	33½	Do.	8	6	Cholesterolin and bile pigment.	Small round stones of yellow colour, with rough surfaces. One was firmly fixed in the cystic duct.
15	71	Obese.	Pneumonia and heart disease.	Mania, followed by dementia.	4½	Large, fatty; fibrotic in places.	64	Distended.	192	460	Cholesterolin and bile pigment.	Yellow stones with facets, mostly very small, the largest about the size of peas, and weighing 2 grs. each.
16	48	Extremely emaciated.	Phthisis.	Recurrent mania.	22	Fatty, soft, and congested.	32½	Not enlarged.	42	3	Cholesterolin	Of equal size, and of a buff colour.
17	44	Much emaciated.	Phthisis.	Melancholia.	18½	Fatty, nutmeg.	47½	Small.	82	1	Cholesterolin	Size of pigeon's egg, with rough surface and of a yellowish-green colour.
18	81	Emaciated.	Cerebral hæmorrhage.	Senile mania.	2	Small.	34½	Not enlarged.	27	13	Bile pigment.	Of equal size, with facets, and of a dark brown colour.

were over 60 years, the youngest was 42. The average age is a little over 65. The average age of the remaining 32 cases was 55; of these, however, one died at 27 from phthisis, and others died at 33 and 35. Thirteen out of the 32 died over 60 years of age. The bodily condition varied; in nine there was emaciation, six were fairly or well nourished, and three were abnormally stout. There was no relation to age. Adopting the divisions in general use it is seen that the form of insanity differed, and that the length of time the mind had been affected also varied very considerably. Mania and melancholia appear to be about equally frequent. In Cases 2, 6, 10, 11, 12, 13, and 16 acute attacks of mania lasted up to the time of death. The rest had for some time previously been quiet, dull, and more or less infirm. The duration of insanity varied from 40 years to three months; only nine of the cases had showed symptoms less than five years.

In none of these cases were there any symptoms pointing to the existence of gall-stones during life; that is to say, they had never been jaundiced, no hepatic colic had occurred, and no pain had ever been referred to the region of the gall bladder. This is not peculiar to the insane. The great majority of calculi found in the gall bladder after death have been found by accident, and were not suspected during life. This is the case with those in patients dying at infirmaries. In none of Mr. Cooper's cases were there symptoms, and in one a stone completely closed the duodenal orifice of the common duct, without even giving rise to jaundice, a condition, however, which must be extremely rare. At a recent discussion at the Medical Society of London,\* following Mr. Knowsley Thornton's paper "On Cholecystotomy," it was suggested by some that whenever gall-stones could be felt they should be removed by operation, but Mr. Marmaduke Shield remarked that "gall-stones often existed without causing any symptoms, and were very frequently found (post-mortem) where they were by no means suspected," a statement agreeing with Murchison and others. Mr. Hutchinson said that "the public should not be taught to look upon gall-stones as substances which, like urinary calculi, when found ought to be removed; they were constantly found with no symptoms whatever." Those that advocate the removal of gall-stones in all cases where discovered by palpation would find Colney Hatch the best of

\* "Lancet," April 2nd 1892.

schools at which to become proficient in the operation of cholecystotomy!

Attacks of excitement such as occur in recurrent mania might, one would have thought, dislodge the stones from the gall bladder, and by becoming fixed in the common duct give rise to symptoms or to colic during their passage to the duodenum. I have not found a stone in the common duct, and it is quite impossible to say if the passage of gall-stones took place in any of the cases. Cases have been recorded in which gall-stones have been passed per rectum, and in which there had been no previous history to point to their entrance into the intestine. In the case of the insane it is quite possible that, owing to the general dulling of sensation and of pain, such might more readily be overlooked than in others.

Now, as to the causes favouring the formation of gall-stones, authorities are fairly unanimous on some points. Wickham Legg, writing in Quain's "Dictionary of Medicine," says: "Want of physical exercise and indulgence in rich diet seem to favour their production." Taylor ("A Manual of the Practice of Medicine") says: "Sedentary occupations and over-indulgence in food seems to have some influence. The fatty and starchy constituents are thought to be more injurious." Austin Flint\* says much the same. Bristow is more guarded: "There is reason to believe that they especially affect persons of sedentary habits. The influence of diet is unknown." Roberts ("The Theory and Practice of Medicine") writes:—"There are some important predisposing causes of gall-stones, namely, advanced age, the female sex, sedentary habits, habitual constipation, over-indulgence in animal food and in stimulants, and organic disease of the liver, gall bladder or bile ducts interfering with the escape of bile." According to Murchison† "gall-stones are particularly common in persons of stout habit, who consume large quantities of rich saccharine and greasy foods and alcoholic fluids, and who at the same time live sedentary lives." He adds: "From what has been stated it follows that gall stones are much more common in the middle and upper classes than among the labouring population and the poor." And in speaking of the treatment of jaundice from gall-stones he says: "It is necessary to counteract those habits on the part of the patient which

\* "Principles and Practice of Medicine." Philadelphia, 1873.

† "Clinical Lectures on Diseases of the Liver," 1885.



experience has shown to conduce to the formation of gall-stones. He must rise early, and take plenty of exercise in the open air, sleep in an airy bedroom, live sparsely, drink little or no wine, and avoid all rich, fatty, and saccharine food and malt liquors."

Thudichum states that vegetable food predisposes more to gall-stone disease than does flesh food, and that mixed food affords the greatest predisposition to the disease. He says, however:—

"That persons of sedentary habits, such as authors or women following callings which entail little exercise of the body, are more liable to gall-stones than other persons of active habits has been alleged but not proved. So far as my own experience goes active habits, on the one hand, do give no protection from gall-stones if they are not joined with moderate habits of living; and sedentary habits, if not accompanied by excess in eating and drinking, do not by any means predispose to gall-stones. In the forty-five cases collected by Wolff sedentary habits could not be blamed for the disease, as most patients were of very active habits."

Thudichum is, moreover, opposed to the view that obesity predisposes to gall-stones, and thinks this view has exploded, it having held strong ground when cholesterin was believed to be a fat, thereby an explanation was founded that this substance was deposited in the biliary passages owing to the presence of an excess of fat in the body.

Amongst other predisposing causes that have been put forward at different times it may be mentioned that hard drinking water has been said to favour the production of gall-stones, but on very doubtful grounds. Our patients were for the most part derived from London and its neighbourhood, where a clay soil exists. It must be mentioned, however, that Colney Hatch Asylum is supplied with water from a well which passes down to the chalk, but some of the cases had been in the asylum a very short time. It has been said that renal calculi are often associated with gall-stones, and Murchison, who believed in their special frequency in persons who were the subject of lithæmia, quotes a number of observers, from Baglivi and Morgagni onwards, to show the co-existence of urinary and biliary calculi. I have only to say that in not one of my 50 cases was there a stone in the kidney or urinary bladder. Allied diseases, as gout and rheumatism, have been associated with gall-stones, as either occurring in the patient or in the family. Neither of my 18 cases had either of these affections. But Murchison includes

in the same category the nervous affections of neuralgia, migraine, and urticaria.

Other diseases have been associated with gall-stones; for instance, they are said to be frequently discovered in the gall bladder of persons who have died of phthisis, and also of malignant disease. Concerning the latter, the figures which I have brought forward distinctly oppose this, but even if this were so, as Fagge\* says, "This may be merely a coincidence, for both cancer and gall-stones are apt to occur in persons advanced in years." When primary malignant disease of the liver exists, and it almost invariably starts in the neighbourhood of the gall bladder, it is possible, of course, that the stones owe their origin secondarily from stagnation of the bile through pressure and obstruction from the growth on the ducts, but I am personally in favour of the view that the new growth results from irritation set up by the pre-existing stones, although the rarity of cancer of this organ, compared to the frequency with which stones occur, is somewhat against this view. There is no doubt that in cancer the body functions become deranged, and that this is the case in phthisis, a fact which may have some influence in favouring the concentration of the bile and, perhaps, alteration in its composition. So in marasmus of age; Samuel Cooper† is said to have drawn attention to the frequent occurrence of gall-stones in bed-ridden persons.

Some climatic influences have been alleged, and it is quite possible that they may occur with greater frequency in certain districts, but evidence is wanting on this point. It is amusing to note, however, that it has been said that gall-stones are most common in the winter. Seeing that old women, in whom they are most often found, die more frequently at this than any other period of the year, it is true, but as remarkable a statement as that of a well-known physician, who said that tinia tonsurans occurs with greater frequency in fair-haired children.

It has been said that imprisonment predisposes to gall-stones, on which point the following passage occurs in Thudichum:—

Soemmering states that he found gall-stones in the bodies of most females and males who died in the prisons of Mayence and

\* "Principles and Practice of Medicine," edited by Pye Smith, Vol. ii., p. 504.

† Thudichum.

Cassel. Bouisson also found them not rarely in the bodies of prisoners at Nismes and Montpellier, but not so often as had been stated by Soemmering. Besides these general statements, no data are in existence upon which to found any positive assertion, and, consequently, we are obliged to reject the hypothesis that imprisonment is favourable to the development of gall-stones.

And long-sleeping has been accused as a cause by Hoffmann, Van Swieten, and Haller.

In none of the text books in general use have I found insanity mentioned as a predisposing cause, but Mr. Jonathan Hutchinson\* has lately remarked that gall-stones "were constantly found, for instance, in lunatics, especially melancholiacs, with no symptoms whatever."

Copland,† after mentioning sedentary occupations with rich and full living, names melancholic temperaments, with violent or depressing passions, under the causes favouring the formation of gall-stones. And recognizing the tendency to retardation of the secretions in the insane, he writes, when treating of insanity, "The state of the digestive organs, and especially of the biliary and the intestinal secretions, ought to be duly or even daily observed, and promoted whenever scanty or suppressed."

Dr. Goodhart,‡ in a recent article in "The British Medical Journal" on gall-stones, speaks of "stout people of sedentary occupation and high living" as the generally accepted condition of life believed to be present with cases of gall-stones, and then gives his own experience, which is in a contrary direction. He lays some stress on "the influence of mental worry in the production of gall-stones," concerning which he writes: "It seems likely enough that the lessening of the nervous flow, which must result from nerve exhaustion, may so retard the function of the abdominal viscera as in a true, albeit a vaguely-apprehended, manner to render the liver sluggish, and the various constituents of the bile would be then improperly formed, and some—as, for instance, the cholesterin—might become disproportionate in amount or thrown out of solution." He further adds: "I venture to suggest that errors of commission in diet have very little indeed to do with the production of gall-stones, and that their occurrence may be anticipated under any diet in a certain proportion of neurotics."

But "mental worry and anxiety" are the fashion of the

\* Medical Society of London, *l.c.*

† "Dictionary of Practical Medicine," 1866.

‡ "British Medical Journal," Jan. 30, 1892.

day; the number of diseases that owe their origin to this cause is yearly increasing at an alarming rate, and we shall probably soon have "all the ills that flesh is heir to" put down to mental worry. At the same time, I do think that the nervous system may exercise some influence on the production of gall-stones through a general lowering of vital activity. In old age vital functions are depressed and there is a sluggish flow of the secretions of the body, and this would, I believe, be increased by the pathological conditions that produce insanity, and thus considerably aid the formation of biliary concretions.

A large number of the conditions that have been mentioned are present in lunatic asylums. In the cases now brought forward we have advanced age in females, combined, for the most part, with a sedentary and depressed condition, and the general dulling of the system associated with insanity. It may be mentioned that gall-stones do not appear to be more frequent in cases of melancholia, as might have been expected, for that form of insanity existed in not more than half the number of cases, and in some there was acute mania throughout the whole course of the disease. Mr Hutchinson's statement is, therefore, not entirely carried out. Concerning the diet of the patients, it may be remarked that it is a liberal one, and is more of a carbohydrous nature than a nitrogenous, starch, sugar, and fats entering largely into its composition. From what has been quoted, it appears that most authorities consider an excess of fats and sugars one of the most powerful predisposing causes of gall-stones, but this is directly opposed by Roberts and is apparently not believed in by Goodhart. As already noticed, half the cases were markedly emaciated, and only three were abnormally stout. The patients are in bed from eight p.m. to six a.m., but this would not represent ten hours of sleep in some of the cases of acute mania.

I have at present only referred to the causes predisposing to gall-stones, and not to the actual formation of these bodies, but there is a point in connection with the latter that may bear an important relation to our subject. Most authorities give as one of the starting points for gall-stones, plugs of mucus in the gall bladder, and Fagge goes so far as to state that in all cases "the immediate origin of gall-stones is apparently a little mass of mucus; to this bilirubin is attached, and so a nucleus is formed upon which cholesterin is slowly deposited."



I believe it to be an established fact that lunatics are particularly liable to catarrhal affections. We see this in sore throat, colds, bronchitis, and the frequency of pneumonia, which disease is one of the commonest causes of death in lunatic asylums. Remember, too, how severe the epidemic of influenza, a disease presenting catarrhal symptoms, has recently been in these institutions. Also attacks of diarrhoea are by no means uncommon. A catarrhal condition of the mucous membrane of the gall bladder probably exists with the same conditions elsewhere; there is then an increase of mucus secreted from that membrane. This being the case we have a further cause for our greater frequency of gall-stones in the insane. It may be mentioned that an actual inflammation of the gall bladder is mentioned by Austin Flint as a possible cause of gall-stones. The cause of the liability of lunatics to these catarrhal attacks is somewhat apart from the subject of this paper, but perhaps the exposure to draughts, to which these patients are liable, associated with the lowered bodily condition and perverted nerve action already referred to, may have much to do with their onset.

I have not brought forward gall-stones as a cause for insanity, nor shall I attempt to prove anything of the kind. I will merely observe that Murchison,\* in speaking of the consequences of gall-stones when retained in the gall bladder, says, "It is very possible also that in persons of a nervous constitution they may be a centre of irritation from which may arise uneasy sensations and symptoms of actual disease in distant parts of the body, with great mental depression and hypochondriasis. Several cases which have been under my care have served to impress me strongly with this opinion."

My cases include only women, and the percentages of cases in which gall-stones occur holds good only for female lunatics. I have made inquiries from my colleagues as to the frequency with which they have found gall-stones in male patients, and am told that they are seldom found, probably not in one per cent. This agrees with Mr. Cooper's results at Highgate. Although the actual number may correspond with the accepted frequency in males, yet the proportion which this holds to that in females is not by any means so. As already has been said, all modern writers agree that gall-stones are of greater frequency in women

\* *l.c.*, p. 543.

than in men, but do not give the proportion. According to the authorities, however, quoted by Thudichum, the difference in the two sexes is not great, for he says:—

Morgagni compared a great number of cases, and came to the conclusion that these concretions are almost as common amongst men as amongst women.

It nevertheless became a current opinion that women were more subject to gall-stone disease than men. This belief was first decidedly expressed by Ch. Etienne ("De dissect. part. corp. hum." lib. III., cap. 42), and was adopted and defended by Fr. Hoffmann ("De bile corporis," Hallæ, 1704), by the celebrated Haller ("Elementa physiologica," Lausannæ, 1777), and Sœmmering. Of the 91 cases examined by Walter the majority, namely 47, belonged to the male sex, and only 44 were females. For practical conclusions these proportions may be considered equal.

Out of 45 cases observed by Wolff (*l.c.*, p. 1) 15 were males and 30 females, giving a proportion of one to two.

Out of 620 cases analysed by Hein, 243 were males and 377 females, making a proportion of about two to three.

The proportions just given are very different from those found existing after death by Mr. Cooper. They are apparently from living persons, and it is possible that the want of agreement is dependent upon the fact that in men, owing to their more active life, gall-stones when present are more liable to produce symptoms and so their recognition.

Hein is also quoted in Fagge's "Medicine" to the same effect. If this were true in our lunatics we ought to find gall-stones present in something like 24 per cent. of the bodies of males examined in proportion to the 36 per cent. found in the females. What is the cause of this great difference in the sexes? Fagge, writing on the greater frequency in women, says: "Perhaps this is due to the fact that females over the age of forty are particularly apt to gain flesh and to lead sedentary lives." Although the latter may be true of asylum and infirmary patients, yet the former is not generally so. In this connection it must be remembered that the male inmates of an asylum do not, as a rule, live to anything like the age of the female, owing greatly to the fact that general paralysis is far more frequent in men. The men, therefore, are not subject to the same conditions of life, such as diet, etc., for so long a time; and on the whole the men lead a much more active life, and, perhaps, are liable to become more restless and excited than the majority of the women.

There is one more point on which I wish to touch. It is a remarkable fact that cholesterin, which enters so largely into the composition of gall-stones, is an important constituent of normal nervous tissue, where, according to Halliburton,\* it is present in myelin or the white substance of the medullary sheath. From Baumstark's † analysis of the chemical composition of the brain we learn that in every 1,000 parts of the solids cholesterin occurs as follows :—

	In the white substance.	In the grey matter.
As free cholesterin ...	18·19 parts	6·3 parts
„ combined cholesterin ...	26·96 „	17·51 „

That is to say that cholesterin exists to the extent of rather more than 45 parts in the white substance and 23 parts in the grey to every 1,000 parts of the solid matter of the brain. There is evidently a serious mistake made by Allechin in Quain's "Dictionary of Medicine," where he says that cholesterin forms as much as "51·9 per cent. of the solids of the white matter and 18·6 per cent. of the solids of the grey matter of the brain." It is probable that here 1,000 parts is meant instead of 100 as written. It occurs also in far smaller quantities in the blood, and only to a slight extent in normal bile.

Cholesterin is generally regarded as a product of the metabolism of the nervous tissues, which should be eliminated by the liver in the bile, and, according to Flint, passes from the body in the form of stercorin. McKendrick ‡ says: "The mode of origin of cholesterin in the body has not been clearly made out; whether it is formed in the tissues generally, in the blood, or in the liver is not known, nor has it been determined conclusively that it is derived from albuminous or nervous matter. It is also doubtful if we can regard it as a waste substance of no use in the body, as its presence in the blood corpuscles, in nervous matter, in the egg, and in vegetable grains points to a possible function of a histogenetic or tissue-forming character." Cholesterin in the bile appears to be increased in amount in febrile and wasting conditions, a fact that may have some connection with diseases such as phthisis, and, perhaps, I may include insanity.

I do not know whether it has been shown that cholesterin

\* "Chemical Physiology and Pathology," 1891, p. 531.

† "Lehrbuch der Physiologischen Chemie," Olef Hammarsten, 1891.

‡ "Physiology," i., 147.

is increased or diminished in the brain of the insane. One might be inclined to think that in the brain it would be diminished in amount on account of the replacement of the nerve fibres by connective tissue with a compensatory increase in the biliary secretion owing to its elimination from the body. This would be an exceedingly interesting subject for investigation, and one which might throw some light on the subject which I have ventured to bring before you to-day.

NOTE.—Cholesterin is probably an ultimate product of certain tissue changes, which has to be got rid of, but whether it is solely manufactured in the nervous system is not clear. In the blood it has been proved to exist in the red corpuscles, and not, so far as I know, in the fluids of the blood. Seeing that the red discs are incapable of taking up and conveying a substance such as cholesterin from one part of the body to another, and as the difficult subject of the existence of this substance in the white corpuscles does not appear to have been worked out, it is impossible to say if any of the cholesterin in the bile is derived from the nervous tissues. It may be noted, however, that Drs. Noel Paton and Balfour consider that the cholesterin in the bile owes its origin entirely to the destruction of blood corpuscles, for in observations on the composition of human bile, they say, "In connection with the cholesterin and lecithin there can be little doubt that these are derived from the stroma of the red corpuscles. The vague view that they are derived from the nervous system, taught by certain physiologists, is based upon no better evidence than the fact that both substances occur in these tissues." ("British Medical Journal," May 7, 1892.) The former, writing again in the number for May 21st, says, "From the well-known fact that an enormous destruction of hæmocytes goes on in the liver there is at least a fair basis for the view that the cholesterin and lecithin of the bile are derived from these constituents in the corpuscles." Whether this view is correct or not, it raises an interesting question. In those persons in whom gall-stones occur, is there an excessive destruction of red corpuscles taking place in the liver by which not only the cholesterin, but also the pigment, is increased in amount?

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*Note upon Hæmatoma of the Dura Mater.* By EDWIN GOODALL, M.D.Lond., B.S., M.R.C.P., Pathologist and Assistant Medical Officer, West Riding Asylum, Wakefield.

The following facts appear noteworthy as bearing upon the morbid condition going by the names "hæmatoma of the dura mater" and "pachymeningitis hæmorrhagica interna." In the course of recent experiments I have had occasion to incise the dura mater of (anæsthetized) rabbits and apply Sp. Vin. Gallic. or diluted cantharidin to the cerebral cortex through the aperture so made. On killing one of the animals after the lapse of 48 hours and opening the skull almost the whole of the right hemisphere (that



operated upon) was seen to be covered with dark-red clot. This term is justified by the appearance of the exudate, whatever its origin may have been. On incising and reflecting the *dura mater* it was found that the clot lined the inner surface of that membrane, and had no connection with the subjacent structures. The vessels of the *dura* were unduly prominent and numerous, but there was no swelling of the membrane, and, apart from the clot, its inner surface was free from exudate. The clot was raised without difficulty, and washed gently in water; the colouring matter came gradually out, and left a delicate, greyish-pink, translucent, continuous pseudo-membrane of sufficient consistence to permit of manipulation. This was divided into two portions, which were stained with hæmatoxylin and safranin respectively. Microscopically the pseudo-membrane was found to consist of red and white corpuscles (the former in considerable majority), a meshwork of fibres (fibrin, apparently), and an amorphous substance, uniformly stained.

In this particular instance the irritant used was *Sp. Vin. Gallic.*, which was also employed in the same amount in three other instances; in two others dilute cantharidin was applied. The five animals last mentioned were killed at dates ranging 24 hours to six days after the operation, but in no instance was there an inflammatory exudate upon the *dura*, or naked-eye evidence of inflammation of that membrane. Yet in some of these animals the duration of life after operation, and the strength of the irritant used, were greater than in the case of the animal presenting the blood-clot. These facts, together with the consideration that the measures employed were scarcely such as would bring about inflammation of the *dura* (which received but slight injury), render it difficult to explain the morbid appearance described above upon a theory of pachymeningitis *plus* irruption of blood into an inflammatory exudate. There is, moreover, the further fact that the red corpuscles considerably outnumbered the white; the latter formed only a small portion of the corpuscles visible. The large number of red corpuscles is explicable on the supposition of blood-extravasation into an exudate, but the small number of white would, on that hypothesis, still be unexplained. Even if we suppose that many of the latter underwent destruction shortly after the coagulation of the inflammatory lymph—thrown out as the result of pachymeningitis—the comparative scarcity is not, to my mind, accounted for. This paucity of white corpuscles,

indeed, is a most serious objection to the theory of pachymeningitis in the present case.

The blood-clot occurred in only one out of six cases, and I think it highly probable that in this particular case some vessel of the dura was cut accidentally when that membrane was divided, and that extravasation of blood upon the inner surface of the latter resulted. In consequence there was formed a blood-clot, pure and simple. Had the animal lived it is reasonable to suppose that organization of this clot would have taken place; to put the matter differently, this case presents the earliest stage of a hæmatoma of the dura mater. Possibly inflammatory exudation may sometimes constitute the earliest stage; but with this point I am not now concerned.

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## CLINICAL NOTES AND CASES.

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*Case of Cerebral Tumour.* Read at meeting of Forfarshire Medical Society, 25th March, 1892. By JAMES RORIE, M.D., L.R.C.S.E.

A. A., æt. 60, from Dundee Combination Parish, admitted into the Dundee Royal Lunatic Asylum 1st Dec., 1891. Exciting cause cerebral tumour; predisposing cause, hereditary predisposition; symptoms those of senile paralytic dementia.

*Statement.*—Single; housewife and dressmaker; Protestant religion. First attack; cause unknown. Not epileptic; not dangerous to others; not suicidal. Her sister is at present in Fife and Kinross District Asylum. On admission patient was certified as follows:—

*Medical Certificate I.*—1. She is childish in her talk, has lost her memory, and had the delusion that her mother, long since dead, had gone out on a message, and she was wondering why she had not come back. 2. Her sister informed me that she often talked incoherently and often without any sense, and her conduct was childish, often singing and dancing.

*Medical Certificate II.*—1. She had entirely lost her memory; she had no idea of the day of the week or if it was morning or night. She was dull and stupid and did not understand questions put to her. 2. Her sister told me that being a dressmaker she attempted to make a dress and cut up the cloth into small meaningless pieces.

*History* obtained from her sisters. Has been going wrong for about four weeks. First symptoms observed were that she became stupid, and asked the same questions several times over, and doing other silly things. Has continued much the same up to the present time. An inability to look after herself has been steadily increasing. Her father died 32 years ago of typhus fever, and her mother nine years ago of bronchitis, age 72 years. Has four brothers alive and healthy, one died in infancy. Three sisters are alive and well, but one sister (next to herself as regards birth) is at present a patient in Fife and Kinross Asylum. Has had a good deal of worry and poverty since her mother's death. Habits as to drink quite steady; has always been a hard-working woman. Sleep very good—in fact, she sleeps almost day and night. Has taken food badly for some time past.

Physical examination made 3rd Dec., 1891. Hair light-brown, eyes grey, muscularity poor, weight 8st. 12lbs. Patient is an oddish woman with pale, flabby features, eyelids slightly puffy; dull, apathetic expression, and irritable, querulous manner.

*Alimentary System.*—Tongue clean; bowels regular; appetite fair.

*Circulatory System.*—Pulse 80, regular, very weak tension; heart sounds feeble. Second sound markedly accentuated and first sound inaudible in aortic and pulmonary areas.

*Respiratory System.*—Percussion resonant. On auscultation expiration prolonged, but nothing else discovered.

*Urinary System.*—A deposit of urates, S. G. 1030, acid; no albumen.

*Nervous System.*—1. Sensory: Tactile sense apparently normal, special senses normal; no hallucinations elicited. 2. Motor: Knee and plantar reflexes moderate. Motility somewhat impaired; complains of weakness in the legs in walking. 3. Cerebral and Mental: Intelligence impaired to considerable extent. Memory for both past and present events much impaired. Says she has been in this house for only three-quarters of an hour, and that her father died 12 years ago and her mother at the same time. Attention not sustained for any length of time. Speech fairly coherent. Has delusions that her sisters were very unkind to her, and called her names, etc., but none of a fixed nature. Sleep very good, patient falling asleep at any time during the day or night. Emotions depressed; volitional power very weak, patient being quite unable to look after herself; habits degraded.

*Progress of Case.*—Seven p.m., took tea. (Dec. 2.) Slept well but took no breakfast. (Dec. 3.) Taking food well, had good night. No marks on body; is of dirty habits. Seven p.m., has been quiet all day; has taken food pretty well; bowels regular. (Dec. 4.) About the same, but very irritable. Seven p.m., about same, takes food fairly well. (Dec. 8.) Seven p.m., takes her food well, and bowels regular.

From this date nothing occurred particularly to attract attention, till 8th Feb., 1892, except that the general paralysis and frailness steadily increased and the tendency to sleep got more marked, with increased mental weakness. This patient would walk along a corridor till she came to a door, and would then come to a stand and fall asleep standing. Sitting down to her meals she would drop over asleep in the act of taking her food. Another rather exceptional symptom, and apparently indicating a feeling of giddiness and insecurity, was that while she was sitting on a chair *if anyone passed quickly in front of her* she would lose her equilibrium and fall on the floor.

On the 8th Feb., 1892, at 6 p.m., she was seized with a sudden fainting fit, but rallied under administration of Digitalis and Sp. Ammon. Arom. (Feb. 9.), at 11 a.m. was in a very drowsy state. Had taken no breakfast, pulse was weak and irregular, and so digitalis, etc., were repeated. Paralysis seemed rapidly advancing, patient passing excreta apparently involuntarily; took no dinner. At three p.m. paralysis was more marked. Face perceptibly drawn to left side; gradually got weaker and died at 3.15 p.m.

Post-mortem examination made 11th Feb., 1892, at 10.15 a.m.; and recorded by Dr. P. H. Boyden.

*General Appearances.*—Body obese; pupils equal, three-fourths dilated. Rigor mortis slight in upper, well-marked in lower limbs. Hypostatic lividity well marked in back. Two superficial bed-sores, one situated over each tendo Achillis.

*Head.*—Scalp easily detached. Calvarium slightly thicker than normal and irregular in outline, being slightly constricted at anterior edge of squamose suture and most marked on left side. Dura mater non-adherent except to a slight extent at vertex. Pia-arachnoid thin, rather congested, and was stripped off with some difficulty. Meningeal and cerebral veins congested. No fluid in sub-dural or sub-arachnoid spaces. Surface of brain flattened. On making first horizontal section the grey matter was found pale and slightly atrophied. In right centrum ovale was a gelatinous softening the size of a marble, and a similar condition was observed at the tips of both frontal lobes. On slicing down to the level of the basal ganglia a large tumour was cut through,  $2\frac{1}{2}$  inches by  $1\frac{1}{2}$  inch, of a dull reddish-grey colour, occupying the site of the basal ganglia on both sides, along with that of the corpus callosum and fornix, with the exception of a small portion of posterior part of the right optic thalamus. It involved the whole depth of the basal ganglia, partially obliterating the lateral ventricles in front. In consistence it felt a little firmer than ordinary cerebral substance, and was apparently composed of interstitial tissues. A narrow tongue-shaped prolongation into the right frontal lobe was much softer, and presented a gelatinous appearance. In the left centrum ovale majus, and on a level with the large growth, was a smaller tumour,  $1\frac{1}{4}$  in. by  $\frac{3}{4}$  in., of an oval



shape, and of similar consistence to the other. No surrounding capsule could be made out. The lateral ventricles contained a moderate amount of clear fluid. The arteries at base of brain seemed healthy. Pons, medulla, and cerebellum were normal. Floor of fourth ventricle healthy. Striæ acousticiæ fairly well marked.

*Thorax.*—Lungs non-adherent. Pericardial sac contained a small quantity of clear fluid. Surface of heart loaded with fat. Left ventricle  $\frac{7}{8}$  in. at thickest part. Chamber empty and contracted. Mitral orifice admitted tip of index finger. Valve shrunken and somewhat thickened. Wall of right ventricle fairly well nourished. Tricuspid orifice admitted three fingers. Aortic valve competent. A few small patches of atheroma on inner coat of aorta. Both lungs on section showed hypostatic congestion, with slight œdema of upper lobes. At both apices were the remains of old phthisis in shape of fibrous cicatrices, and in right apex was a minute cretaceous nodule.

*Abdomen.*—Abdominal parietes covered with fully an inch of fat. Stomach and intestines healthy, but loaded with fat. Liver apparently healthy. Gall-bladder filled with bile. Spleen small, and on section pale in colour (fatty). Both kidneys lobulated, and on section found considerably congested. Capsules stripped easily. Bladder empty. Uterus showed three hard fibroids size of hazel nuts (extra-mural), and a small pedunculated mucous polypus projected through external os. Weight of organs in ounces:—Total encephalon,  $48\frac{1}{4}$ ; pons, medulla, etc.,  $5\frac{1}{2}$ ; heart,  $10\frac{1}{4}$ ; right lung,  $15\frac{1}{2}$ ; left lung,  $12\frac{1}{2}$ ; liver,  $39\frac{1}{4}$ ; spleen, 5; right kidney,  $4\frac{1}{4}$ ; left kidney,  $4\frac{1}{4}$ .

Microscopical examination of tumour showed that the more dense portion was composed of large nuclei, spindle-shaped, and spider cells indicating its sarcomatous character, viz., a myxoma according to Gowers' classification. Probable time of growth, five months.

This case it will be seen is remarkable from the paucity of symptoms of diagnostic value in a tumour of comparatively large size. One of the most prominent symptoms in such cases is headache, and of this we have no evidence either in the history of the case previous to or since admission into the asylum. As to the existence of optic neuritis, there was no opportunity of ascertaining. The most striking symptoms were those of coma and somnolence and gradually progressing weakness, but these again are almost characteristic symptoms of progressive senile paralysis, where the only post-mortem pathological change revealed in many cases is cortical atrophy. The existence of giddiness was inferred from the patient frequently falling off a chair when

anyone suddenly and quickly passed her. The symptoms conspicuously absent, therefore, were headache, vomiting, marked focal symptoms, speech affection, convulsions, and affections of sensibility.

It must be remarked, however, that the demented state of the patient prevented a complete analysis of the symptoms being made in a satisfactory manner.

NOTE.—In the post-mortem examinations made in Dundee Asylum the occurrence of well-marked cicatrices, often having small cretaceous nodules in their centres has for a considerable time been noted, and seems worthy of further investigation. They seem capable of only one explanation, namely, that they mark the sites of what have previously been cavities; in other words, that the patients have previously suffered from phthisis. It is well known that in many instances chronic diseases disappear on the occurrence of insanity, and it would be interesting to ascertain how far the healing up of these cavities was due to this cause.

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*Case of so-called Katatonia.* By R. PERCY SMITH, M.D., F.R.C.P., Bethlem Royal Hospital.

F. A. C., æt. 32, admitted to Bethlem Royal Hospital May 20th, 1889, single, formerly a governess. Supposed cause, "Anxiety."

*Family History.*—No phthisis, alcoholism, diabetes, insanity or other disease.

*Previous History.*—Always reserved and retiring; never had rheumatism or chorea. Has had fainting fits when in for examinations; no epileptic or infantile fits, measles, or whooping cough in childhood. No syphilis and no other disease except occasional sore throat. Sober; no previous attacks. Has been treated unkindly by her people at home in consequence of having changed her religion to Roman Catholicism. Catamenia usually excessive; missed the month before last.

*Present Attack.*—Five or six months ago began to prefer to lie in bed; would not eat or speak; thought her sister kept back her letters and went to her boxes. Thought she was pregnant, though the catamenia were regular. Not suicidal or dangerous; no hallucinations.

*Certificates.*—(1) "Refuses to speak. Have seen her furiously rushing about the room on her knees.

"Her mother tells me she refuses to allow her clothes or linen to be changed, contrary to her former cleanly habits."

(2) "She is in a state of stupor and speechless; she lies on the bed, and will make no answer by word or sign to my questions. At

times she makes spasmodic and apparently purposeless movements, and makes inarticulate sounds. She is apparently unable to comprehend at all completely what she sees or hears.

"Her mother tells me that she has not spoken for weeks, and that her habits and manner have changed greatly. Her sister tells me that she is passive and takes no interest in her old occupations and amusements."

*On admission.*—Of small stature and not well developed for a woman of her age. Pale face, of dark complexion. Had a fixed and confused stare; pupils dilated equally, but acting to light and accommodation. Her mouth was every now and then spasmodically puckered up. When first seen she would not speak for some ten minutes or so. Her knee jerks were very active, and on tapping the patellar tendon repeatedly the leg was forcibly extended and passed into a state of clonic spasm. On pressing up the foot, ankle clonus was found to be present. She then spoke for the first time, and tried to explain that the phenomenon was due to the tendons and blood running backwards and forwards, but her reaction to questions was slow and hesitating. Previous to speaking she kept her jaws closely clenched together. When about to speak sometimes the muscles of the mouth contracted spasmodically, and she was unable to speak till this passed off, after lasting for one or two seconds. Her lips were very tremulous. When first seen her limbs were in a condition almost cataleptic, but they did not remain for long in the position in which they were placed. She complained of some frontal headache, and also of pain over the mastoids, also in the neck along the line of the carotid artery; said she had pain in her shoulders, legs, and back, due to the blood running backwards and forwards in the tubes. Noticed bad smells, which she thought were possibly created to annoy her. Had nasty tastes in her mouth, and thought her food tasted peculiar. She considered someone had tried to poison her at home. Apparently had no hallucinations of sight or hearing. Thought her throat had become constricted, and for this reason she swallowed large pieces of food to keep the passage open, also thought this imaginary constriction interfered with her breathing. This feeling of narrowing of the throat was always present, and not coming on from time to time. Tongue clean and steady, appetite good, bowels regular, temperature normal, common sensibility normal. Thought that the bones about her wrist were soft and had a great tendency to break. No defect of sight or hearing. Memory for both recent and remote events weak. Heart and lungs normal.

The following are some of the notes from the case book:—

May 27.—Has spoken very little since last note.

June 4.—Is in a condition almost of stupor; will not speak, and is more or less cataleptic. She does walk a little of her own accord, but like one feeling her way in the dark, and walks on her toes,

the heels being quite raised from the ground, and the hands being held up.

June 30.—Does not yet show any improvement beyond having gained flesh, and is fresher in appearance than on admission. Still walks about in the same shuffling manner, saying over and over again, "I must be natural," in a rather monotonous voice, and says she will fall if she doesn't keep moving. She often stops in the middle of a word or sentence. Still in a semi-cataleptic state, holding her arms up in one position. She however manages to feed herself, but often eats standing or moves about while doing so.

July 29.—Takes no notice of anything, and constantly keeps her face covered with her dress or hands, as if she had some delusion respecting herself.

August 29.—Of late there has been an improvement in appearance, and she now answers fairly well when spoken to, and when told firmly not to stammer in her speech she does not do so, or at least to nearly the same extent as formerly, and she appears to take in more than one gives her credit for.

September 29.—Has of late become excited and emotional, with outbursts of causeless hilarious laughter, and very dirty in habits. She had for this reason to be moved to another ward.

October 19.—No improvement; speech and manner the same. Has to be washed and dressed; at times allows the saliva to trickle down her clothes.

October 31.—No change whatever.

November 27.—No change.

1890, January 15.—Speaks more than formerly. Appeals to an attendant whom she calls "Sabina" before every action, and requires her sanction before she says or does anything.

March 10.—Of late laughs at very little provocation; sings and dances at the command of "Sabina," who has power to prohibit all her actions.

April 13.—No improvement.

May 13.—Removed to a quieter ward again. Repeats all day the same sentence, "I must mind Letitia," in a monotonous voice and as if scanning. Takes no notice of anyone.

On July 29 I made the following note:—Patient is now fat and in good condition. Her expression varies, sometimes she laughs, and at other times looks annoyed, but her face as a rule is devoid of any marked expression, and she appears occupied with her own thoughts. She generally adopts rigid positions of the hands, the fingers being extended and approximated. There is a slight cataleptic tendency, but she does not long retain the position in which her hands or arms are placed. She generally stands with one foot in front of the other, balancing herself from one to the other incessantly. Knee jerks exaggerated; frequently before beginning to speak a sudden fibrillar twitching



affects the lip muscles. She will not protrude her tongue when told. If a hand be laid on her shoulder or an attempt made to open her mouth she will say something to the following effect: "Doc—Doc—Doct—Doct—Doctor Smith ta—ta—ta—take your hand away." This repetition of the initial syllable is very constant. At other times she seems to drop terminals, *e.g.*, "Doc—Smi—ta—your han—aw—." She often repeats the same sentence over and over again to herself; recently it has been "I was brought up as a lady." She certainly does not appreciate her surroundings, and does not occupy herself. She takes food well. Is unclean in habits. She mistakes the identities of the people around her, and has addressed the medical officers by titled names. She seems to be passing into dementia.

September 26.—For some days has been very noisy; laughs at anything and everything, shouts out absurd remarks, apparently without much meaning. Hesitation in speech not so marked.

November 19.—Discharged uncured; transferred to Camberwell House.

By the kind permission of Dr. Schofield I was able to see her on April 29, 1892, at Camberwell House, and I found the following condition:—Still has the same tendency to "verbigeration." Her facial aspect is rather expressionless, with a deficiency of the usual folds at the corners of the mouth, but occasionally while talking to her she bursts into laughter, and it is then evident that there is no real loss of power in the muscles, and there is now no marked tremor of lips before beginning to speak. There is some tremor of the tongue. The grasp of the hands is equal, but they are still held somewhat stiffly with the fingers approximated. When asked to walk she took very large steps as if she were trying to step over something, and she is said not to walk on the tips of her toes as formerly. She is liable to occasional lapses into the stupor she formerly had. She is still somewhat cataleptic, her arm remaining in the position in which I placed it while talking to her. The pupils are equal and act to light. The knee jerks are exaggerated. There have been no fits of any kind. There is some analgesia, but no anæsthesia. Although she was tidily dressed when I saw her, the nurse told me that she is often destructive to clothing, and is dirty in habits. She recognized me, but her memory appeared to be weak for past events. She remembered "Sabina," but could only tell me the real name of one of the nurses at Bethlem. She remarked to me, "Sometimes I fight, and *he* fights me," and she talked incoherently of "Albert." She is said to mistake one of the nurses for a man, and names her Albert. She also has a new name for each of the nurses. She takes food well and is in good general health. She told me that her bones were now all right, but said her two brains had been pounded. She told me she was a physician. I could not find any evidence of hallucinations.

This case seems to agree with the description of katatonia, and had in the most marked degree the symptom which is said to be absolutely special to it, namely, verbigeration; in fact, if cases with this symptom so prominently present were found to be of very common occurrence and always in association with fixed attitudes or spasmodic movements and stupor, one would feel inclined to allow the necessity, or at least the advisability, of adding another term to the already chaotic list of mental diseases. In the seven years I have been in residence in Bethlem Hospital, however, I do not remember to have seen an exactly similar case among over 2,000 admissions, though of course one is perfectly familiar with cases of stupor associated with catalepsy, or with fixed and rigid attitudes, and with liability to impulsive outbursts. With regard to the special symptom of verbigeration, I have at present under care a patient suffering from acute melancholia, with refusal of food and general resistance to all interference, and of a perfectly well recognized type, who repeats the same sentence over and over again, generally "I never said anything of the sort," or "I didn't say so at all," and who, therefore, must be said to have verbigeration, but to say that he is suffering from "katatonia" in consequence of this would seem to me absurd.

Dr. Goodall, in the last number of the Journal, refers to the fact that the term katatonia was not used in Bethlem Hospital in his experience, and although the patient whose case I have described (and who was admitted just after he had left us) was spoken of while she was here as one agreeing with the description of katatonia, yet I hesitated to definitely apply to her case a term which seemed so unsatisfactory. With regard to the attempt of Séglas and Chaslin to classify the motor symptoms of this condition under the head of hysteria, I cannot see that this brings us any nearer to their real nature, as I am not aware that anyone has yet thrown light on the true pathology of hysterical paralysis or spasms. One may, however, point to the fact that my patient had a feeling of narrowing of the throat and of difficulty in breathing, which is no doubt allied to the *globus hystericus*. The fact that the advocates of katatonia as a special form of mental disease do not hesitate to speak of katatonic symptoms in other varieties of insanity—for example, in general paralysis—seems to me to be an additional reason against the use of the dubious term introduced by Kahlbaum.

*Case of Cocainism.* By R. PERCY SMITH, M.D., F.R.C.P.,  
Bethlem Hospital.

M. D., æt. 39, a trained nurse, was admitted to Bethlem Hospital May 29th, 1889, as a voluntary boarder on account of cocaine habit, of which she was anxious to be cured. The history she gave was as follows:—She was a German by birth, and when at home in Germany she worked hard as a teacher, her father being a schoolmaster. At the age of 10 years she began taking morphia injections for neuralgia, and went on doing so for 10 years, when she stopped it till four years before admission. A chemist then gave her some paregoric for intercostal neuralgia, after which she began to take laudanum, and continued it for five or six weeks. A year later she had hæmatemesis, which was thought to be due to gastric ulcer, and she again took laudanum to relieve the pain. This continued for about 10 weeks, when she got well and ceased taking the drug. In the October before admission she had two attacks of hæmatemesis, when a doctor prescribed cocaine. This gave her great relief, and she went on taking it; she began with three-quarters of a grain and gradually increased it up to eight or ten grains as a usual dose, sometimes taking 24 grains and occasionally up to 36 grains at a single dose. She recognized that it was a bad thing to go on taking it, but she felt so utterly miserable when she tried to do without it that she always sooner or later broke her resolve not to take any more. For the first six hours after a dose of 10 grains she felt more able for and inclined to work—that is while sitting, *e.g.*, at writing or needlework—but at such times she could not go about, as the drug produced a feeling of weakness, and probably from her description it was a condition of inco-ordination in attempting to walk. At about the end of five or six hours she felt loss of inclination for work and could not apply her mind to anything, and so lay down to rest, feeling tired and exhausted, but was quite unable to sleep, and simply tossed about in a restless condition. About a quarter-of-an-hour after a dose, she usually suffered from vertigo for about an hour and from severe palpitation for some hours. She also had great dryness of mouth and thirst. Anorexia was also produced, so that she took nothing but milk and water. After a large dose there was difficulty in swallowing.

*Mental Symptoms.*—According to her account she had hallucinations of sight and hearing, so that she imagined she saw people walking about her room, principally those whom she knew, and also heard the voices of friends and others talking to her. She carried on conversations with these imaginary visitors and used to laugh at their jokes, the act of laughing arousing her from a sort of waking dream, so that she came to herself again. On one occasion she thought she saw two policemen at the door of her room, and

thought (before admission) they had come to take her to an asylum. She recognized that all these things were hallucinations. Her reasoning power did not seem to be affected, for, when asked how she knew that these were hallucinations, she said that her landlady often came and talked to her in French or German, although she did not really know these languages; therefore, she inferred the whole thing must be imaginary. She, from this, inferred that other like impressions were also imaginary, but expressed considerable difficulty in making out what was real and what fancy. She complained of frontal headache. She told us that she had tried to break herself of the habit by replacing the cocaine by morphia, but that this was of no avail, as the morphia had ceased to have any effect.

In the family history there was no evidence of any insanity, but there was the important fact that her mother suffered from the morphia habit. In the previous history, as given to us by her friends, there was no account of any disease other than those given in the patient's own history of herself. She was said to have been a very cheerful and good nurse, and very patient. There appeared to have been some home anxiety, her father having married a second time, and, perhaps, having been rather unkind to her. The catamenia had been irregular. Before admission to Bethlem she had been to several general hospitals to try and get cured of her habit, and quite recently she had been in St. Thomas's, where she improved very much, but became discontented. There had been no tendency to suicide.

On admission she was somewhat anæmic, and appeared pre-occupied, and suffered from the hallucinations described above. There were no hallucinations of taste, smell, or common sensation, and there were no delusions. She conversed quite intelligently. Her memory for recent events was slightly impaired for details, but the remote memory was quite good. There was no affection of gait, the grasp of the hands was equal and good, and the knee-jerks were equal and normal. Her appetite was good, there was never any dyspepsia or gastric trouble, the bowels were confined. She suffered a good deal from facial neuralgia, especially at night, and for this she had quinine and gelsemium, with local application of chloral hydrate, thymol, and camphor in equal parts, and under this she improved. She was somewhat fidgety, and was bad-tempered, indolent, and untidy, and never could be got to occupy herself in any way. She wanted to be allowed to smoke cigarettes, and used to ask for brandy at night. With complete cessation from the cocaine habit the hallucinations disappeared, and then she was anxious to leave the hospital. There was some difficulty in persuading her to remain voluntarily when the craving for the drug returned, but she was reasonable enough to see that it was almost her only chance of improvement. At the end of June, in order to render her voluntary restraint as little irksome as possible



she was sent to our convalescent establishment, and there she made steady progress. She took for a time liq. arsenicalis, and then ferri et ammon citras, with benefit to her general health. The craving for cocaine seemed to leave her, and she was discharged from the hospital early in September. In the following December she wrote to me: "I found after I left the hospital that at different times, when I felt tired or in pain, the craving for opiates returned so strongly that I have given up all idea of working as a private nurse in some institution, but am going where the temptation, if it comes, cannot be gratified. Thank you most sincerely for having at the most critical time helped me to overcome a weakness that was fast ruining me."

I have not since heard of her and, therefore, should like to infer that she has kept well. One is, perhaps, not justified in assuming that with any certainty, but it is at least highly probable that if she had had a return of the malady she would have again sought the help of the hospital.

*Remarks.*—This case differs from the history usually given in cases of cocaineism in that the habit was not acquired as the result of an attempt to cure the morphia habit, but resulted from the drug being in the first instance given medicinally; the remedy, however, became worse than the disease. Fortunately the habit did not become sufficiently firmly established to lead to permanent mental disease, though the patient had come perilously near to certifiable insanity. The fact that she had previously been able to overcome the morphia habit was probably a strong fact in favour of her being able to resist cocaine, though the latter drug seemed to exercise a greater fascination over her. There was no evidence of abnormal sexual excitement or of sexual hallucinations as in the cases described by Dr. Conolly Norman in the last number of the Journal. Hallucinations resulting from the use of cocaine are said to be often of a terrifying nature, but were not so in this case. The very large doses occasionally taken by her are worthy of note, though 20 grains are said to have been taken with suicidal intent without fatal effect. The case is important as illustrating the value of the privilege of patients being able to enter institutions for mental disease voluntarily. No medical man probably would have ventured to certify her, and without some control other than her own will she would most likely have drifted from bad to worse.

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OCCASIONAL NOTES OF THE QUARTER.

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*Hanbury v. Hanbury.*—*Insanity as a Bar to Divorce.*

The report of the appeal in this case, as given in *The Times* of May 11, 1892, will be found in "Notes and News," as in this report all the essential facts are referred to, and the very distinct judgment of the Master of the Rolls is fully given.

It has long appeared to us that there were instances in which insanity might properly be pleaded as a bar to divorce, but the whole question is so mixed up with sentiment that the clear issues are hardly to be seen. Probably all of our readers have had patients under them who, as a result of brain disease, have suffered from the most overpowering lusts; neither dread of punishment nor higher motives have had any power of restraining, and yet too many such patients might appear to be responsible because they possessed many, if not most, of their faculties.

In these persons the lust was the direct result of brain disease, for which they could not be considered responsible, and it appears to us that in some such cases it would be just—we do not say convenient—that acts the results of insanity should be looked upon as acts for which the person should not suffer. We have known women in the earlier stages of mania, or when only partially recovered from a mental illness, commit acts of adultery for which they were neither morally nor legally responsible, yet so far no case has been tried on this plea.

The weak points in the case of *Hanbury v. Hanbury* were that the patient was not only immoral, but also intemperate in his periods of mental excitement, and the answer to the plea of insanity was that the insanity was but the insanity of acute alcoholism; the second weak point was that the term "*folie circulaire*" was introduced, and neither judge nor jury knew the term, and thought it a form of disease specially invented for the trial.

In the first trial, the late Sir C. Butt urged strongly that as the respondent knew that he was committing adultery he was therefore responsible. He also pointed out that even though it could be shown that he was insane at the time he committed the acts of adultery and cruelty, there was as yet

no precedent for staying the divorce proceedings on that account.

In the appeal Lord Esher went further, when he said "there remained a question of law." "Assuming a diseased mind, and that the diseased mind gave him certain impulses—he would not call it an uncontrollable impulse, as he did not know what that meant in such a case as this—the respondent knew what he was doing and that he was doing wrong. An act of adultery was a culpable act against the wife. He was prepared to lay down as the law of England that whenever a person did an act which was either a criminal or culpable act, which act, if done by a person with a perfect mind, would make him civilly or criminally responsible to the law, if the disease in the mind of the person doing the act was not so great as to make him unable to understand the nature and consequences of the act which he was doing, that was an act for which he would be civilly or criminally responsible to the law. Consequently, even though the respondent's mind was diseased, he was as responsible to the law as if his mind was not diseased." He left the other question untouched as to what the effect would have been if it had been proved that the respondent did not know the quality of his act. The general feeling expressed in the daily papers was that insanity is not now, and should not in future, be looked to as a bar to divorce. We have, however, strong views that in some cases gross injustice is done to mental sufferers and to their families by not recognizing that disease may be more powerful than interest, affection, or reason.

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#### *Alleged Impulsive Insanity.*

An interesting case of alleged impulsive insanity was recently tried before the Sessions Judge at Belgaum, in the Presidency of Bombay. The prisoner, a native, was accused of having murdered a child for the sake of her ornaments. There was no doubt as to his guilt. The body of the child was found with its throat cut, its hands severed, and the bracelets removed, and it was shown that the prisoner had pawned the bracelets in question for a few rupees. Under these circumstances only the venerable plea of insanity was available. The accused alleged that at the time when he committed the deed he was tormented by a pain in the stomach, which irresistibly impelled him to murder the child,

and invited the Court to ascertain by an operation the truth of his plea. The Sessions Judge sentenced him to death, and the High Court of Bombay supported this decision on appeal. In Sir Woodbine Parish's work on Buenos Ayres a somewhat singular case is recorded (*Cf.* Mayo's "Expert Evidence," pp. 60-61). "Some years ago Juan Antonio Garcia, aged between thirty-five and forty, was executed for murder at Buenos Ayres. He was a person of some education, and rather remarkable for the civility and amenity of his manners. When the *vento norto* (north wind) set in he appeared to lose all command of himself, and such became his irritability that during its continuance he was engaged in continual quarrels and acts of violence. Before his execution he admitted that his present victim was the third man he had killed, besides being engaged in various fights with knives. When he arose from bed he told Sir Woodbine's informant he was always aware of its cursed influence upon him—a dull headache first, then a feeling of impatience at everything about him. If he went abroad his headache generally became worse; a heavy weight seemed to hang over his temples; he saw objects, as it were, through a cloud, and was hardly conscious where he went. He was fond of play, and if in such a mood a gambling house was in his way he seldom resisted the temptation. Once there, a turn of ill-luck would so irritate him that he would probably insult some one of the bystanders. If he met with anyone disposed to resent his abuse they seldom parted without bloodshed. The medical man who gave me this account attended him in his last moments, and expressed great anxiety to save his life under the impression that he was hardly to be accounted a reasonable being. But (adds the quaint old traveller) to have admitted that plea would have led to the necessity of confining half the population of the city when this wind sets in."

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### *Deeming's Appeal.*

Deeming's appeal to the Judicial Committee of the Privy Council ended, as everyone expected, in failure. The only strong points that could have been urged in the convict's favour, viz., the somewhat indecent haste with which the whole proceedings in Australia were hurried through, and the peremptory refusal of Mr. Justice Hodges to grant any adjournment, were studiously omitted from the petition, and



allegations that fresh evidence—with which the Privy Council in its judicial capacity had nothing whatever to do—was forthcoming were made in great part the basis of the application for “special leave” to appeal. The so-called evidence of insanity was insufficient to create even a *prima facie* presumption of irresponsibility. A criminal impulse that carefully adjusted itself to opportunity, selected the instruments of its gratification, and surrounded itself with every possible weapon of defence against detection, whatever else it might be, could not, with any fairness, be described as “irresistible.” The proofs of epileptic insanity smacked strongly of simulation, while instinctive criminalism is not yet, according to English law, an exculpatory plea. On the case as a whole we suspend judgment until his whole mental history from reliable sources is in our possession.

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### *The Irish Question.*

In the ranks of the Medical Profession in Ireland, it may be said that “the Irish Question” has for some time been centred upon the new rules of the Privy Council in regard to the abolition of Visiting Physicians to the Irish asylums. The Dublin newspapers have teemed with angry protests against the proposed change. Able letters have not been wanting on the other side defending the radical change which will in the future be effected in the medical staff of Irish lunatic asylums, should the new regulations be finally sanctioned by the Government. In our review of the Fortieth Report of the Inspectors of Lunatics in Ireland in this Journal, January, 1892, we observed that “a great advance in efficiency could doubtless be secured by doing away with the obsolete visiting staff, and replacing it with assistant medical officers. This is a reform which we have thought necessary to suggest many times during the last quarter of a century” (p. 108).

The position of the Visiting Physicians to an Irish public asylum has become a sinecure, and altogether an anachronism in consequence of the conditions having entirely altered since the time the office was first established, and when it was a necessary part of the medical management of an Irish asylum. This change must be recognized by English medical men before they can understand why in the course of time Visiting Physicians have been superseded by

the superintendents of asylums. In England the case is different. Even here, however, a great change has taken place. We are not prepared to say that occasionally an English Visiting Physician is not a distinct advantage. There are exceptions to every rule. It must be remembered that in the rare instances in England in which the office of Visiting Physician is retained, as at the York Retreat, the functions exercised are of a different character from those of the Irish medical visitors. Further, the latter differ as a rule from the former in this, that they have no special psychological training. The whole system as a medical visitation to Irish asylums has been found wanting, and the time has come when it should be swept away.

As will be seen by the Report of the Quarterly Meeting held at Bethlem Hospital, May 19th, 1892, Dr. Conolly Norman brought the subject before the members of the Association, and asked for its support in favour of the new Rule. His Resolution was seconded by Dr. Nicolson (Broadmoor), and is as follows:—"With reference to the order in Council issued by his Excellency the Lord Lieutenant, abolishing the office of Visiting Physician to District Asylums in Ireland as future vacancies shall occur, this Association desires to approach his Excellency with an expression of their opinion in favour of the proposed change in the official work of asylum administration in Ireland. The Association believes that this change will be found to act with decided advantage to lunacy work generally in Ireland, as has been the case in other countries where the corresponding office has been abolished."

Dr. Conolly Norman carried the Meeting with him, and we hope that the Lord Lieutenant will be encouraged by the above expression of opinion to remain firm in carrying out the new Rules. We are glad to notice that while the Governors of some of the Irish District Asylums have petitioned the Irish Government not to endorse the proposed rule, other asylums have warmly supported the alteration. Thus the Governors of the Mullingar Asylum have sent the following resolution:—"The Governors hereby express their approval of the new Privy Council rules, and are strongly of opinion that in the event of a vacancy occurring in the office of Visiting Physician, the substitution for that office of an additional resident medical officer would be an advantage in the interest of the patients."

## PART II.—REVIEWS.

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*The Principles and Practice of Medicine.* By WILLIAM OSLER, M.D., F.R.C.P., Prof. of Medicine in the Johns Hopkins Univ., etc. Edinburgh: Young G. Pentland.

Prof. Osler has not given his reviewers a chance; he has not written a preface. In spite of this we will, however, endeavour to gather something from a book of which the author's name promises so much. In the first place, it must be evident that to include the whole of medicine within a little over a thousand pages of very readable type must imply much—very much—compression, and very direct phraseology. This appears to us to be a feature of the book, the absence of waste words; but this method, of course, raises the *intension* of those which are used, and will perhaps mean some little difficulty to the student of the beginnings of medicine. If it were merely principles which Dr. Osler dealt with, these remarks would have less force, but it is not so—the details are not forgotten, and the amount of information contained is enormous, and up to date; this last statement is, perhaps, superfluous.

To the readers of this Journal, the nervous section will naturally be the most interesting. Turning to the subject uræmia, we find the two interpretations of the nervous phenomena—coma, convulsions, palsies, as toxic or as due to localized œdemas of the brain—both very briefly and clearly stated. The local palsies (hemiplegias, monoplegias) are here recorded, and their occurrence sometimes spontaneously, sometimes after a convulsion, with the further important fact that post-mortem no gross lesion of the brain may be found, “but only a localized or diffuse œdema. These cases, which are not very uncommon, may simulate almost every form of organic paralysis of cerebral origin.” We bear in mind a recent case in which a hemiplegia in a uræmic patient rapidly cleared up *pari passu* with the disappearance of the coma, and summarily disposed of our diagnosis of gross cerebral lesion. Among other cerebral manifestations of uræmia, Osler mentions mania, at times running a very acute course with violent delirium; in other cases “the delirium is less violent, but the patient is noisy, talkative, restless, and sleepless.” He also states that delusional insanity, Folie Brightique, is “by no means un-

common," and he refers to the asylum reports of such cases by Bremer, Christian and Alice Bennett.

In the chapter on multiple neuritis, attention is drawn to the peculiar gait of a person recovering from the disease. It is the so-called *steppage* gait, which suggests the idea that the patient is "constantly *stepping* over obstacles," and it is held to be due to persisting weakness in the extensors, *i.e.*, in those muscles whose paralysis yields the characteristic foot drop. The frequency with which œdema occurs in multiple neuritis is perhaps not made sufficiently prominent.

Optic neuritis is rather summarily dismissed, and under this heading we find no mention of its occurrence, generally in a mild form, in cases of fractured base, nor of its association with ear disease; in the latter case sometimes in so intense a form as to suggest most strongly the simultaneous presence of gross intra-cranial mischief. With the removal of the ear disease, however, the neuritis may rapidly and completely subside. We have seen two such cases. In a subsequent section, however, *viz.*, under abscess of the brain, this hiatus is filled up, and attention is drawn to these very cases of ear-disease simulating gross lesions within the cranium; this on the authority of Gowers.

On the subject of locomotor ataxy, the author contrives to include a very comprehensive survey within a small compass. From an interested point of view, we are glad to see that, speaking of the knee-jerk, he says, "taken alone" its loss "is of no moment, as there are individuals in whom the knee-jerk is absent;" but would not this be regarded by neurologists as making too light of the loss, or as suggesting a frequency of absence which is scarcely warranted? Personally, we should wish to accept Dr. Osler's position. With regard to the curious antagonism between the ocular symptoms (optic atrophy) and motor ataxia, he quotes Déjérine, to the effect that "of the enormous tabetic material at the Bicêtre, in not a single instance in which optic atrophy had come on early and progressed to blindness was the patient ataxic."

In the description of Friedreich's ataxia, there is no mention of the pupils as being normal, a negative characteristic, and the description of the speech as slow and scanning is scarcely complete; it is also decidedly slurring. Dr. Osler suggests that this disease should be called Friedreich's *ataxia*, not *disease*, since paramyoclonus multiplex has also been called after Friedreich.



Among the affections of the meninges, under the heading hæmorrhagic pachymeningitis, we find the statement that Virchow's view that a "delicate vascular membrane precedes the hæmorrhage is undoubtedly correct." Is this so? Can we take it that Prescott Hewett's view of the primary hæmorrhagic origin of these membranes, a view recently confirmed by Huguenin, is now finally abandoned? We had been under the impression that the view of the blood-clot origin of the hæmatoma of the dura mater had been gaining ground of late, and it is certain that there are strong points in its favour, *e.g.*, the mechanical limitations of these membranes, which are generally unilateral, which may spread up to the falx, and there be apparently arrested. The readiness with which in many cases the membranes peel off from the dura, exposing a *glistening* surface, which scarcely suggests inflammation, and, further, the occasional rare post-mortem find of an actual clot spreading over the surface of the hemisphere in just such a way as the hæmatoma spreads. On the authority of Gowers we have it that the origin of the affection is still undecided.

Insular sclerosis.—As Dr. Osler insists, the diagnosis may be very easy, volitional tremor, scanning speech, and nystagmus forming a characteristic grouping, but, on the other hand, the diagnosis may be very hard, not to say impossible, and the difficulty may remain for some years. Dr. Osler refers to this, and quotes Dr. Buzzard to this effect—the difficulty of differentiation lies between this disease and hysteria. But here, also, we think it would have been well to accentuate the point, for the mistake is a disastrous one. Dr. Buzzard urges that the come and go of symptoms, their fluctuation, which we have been accustomed to regard as characteristic of functional disease, will not serve us to exclude disseminated sclerosis. The high authority of Charcot testifies to the same effect, and indeed he goes so far as to say that marked ups and downs (*les hauts et les bas*) are characteristic of the *sclérose en plaques*. The importance of these points has been recently borne in upon us by a case which, originally diagnosed as hysteria, has, after some ten years, been relegated to insular sclerosis; yet, in this same case, there is neither speech affection, nystagmus, nor volitional tremor of the upper limbs.

In the account of general paralysis of the insane the author insists that the expansive delirium is not pathognomonic of the disease, for it may occur in other mental

affections, and it may be absent in general paralysis, being replaced by marked melancholia or hypochondriasis. In two cases, which we recall, the patients were curiously conscious of their own mental and physical failings.

On the subject of writing in general paralysis Dr. Osler does not refer to the peculiarities of irregular spacing of the letters, and to the tendency to drop letters or syllables, both of which characterize the paralytic's penmanship. These points are independent of the tremulous character of the strokes, which may increase up to complete illegibility.

The chapter on tumours is, in our opinion, too brief for the importance of the subject. Among localizing symptoms Osler does not fail to lay stress on Seguin's signal symptom, viz., the part first affected with spasm in a case of spreading convulsion; but another point has to be borne in mind in relation to this, viz., the relative explosiveness of the centre. For it is clear that other things being equal a disturbing cause in the motor area will first manifest itself in the centre or centres nearest to the disturbance, but that if the centres be unequally explosive the law of proximity may be over-ridden. It is thus that the operator, trusting to the localizing value of his signal symptom, may, after carefully trephining at the spot indicated, find no disease at that spot, but working upwards with the trephine discover finally the disease at considerable distance from the signal-giving centre. A highly unstable centre is that governing the muscles of the thumb, and it may in this way lead astray.

Under *diagnosis* abscess is not referred to, yet the differential diagnosis is one which may severely tax the powers of the medical man. The student will do well to bear in mind Byrom Bramwell's dictum in relation to this, viz., that he never commits himself to a positive diagnosis of intracranial tumour unless he has first excluded suppurative ear and nose disease.

Among general and functional diseases acute delirium (Bell's mania) will be found to correspond with the acute delirious mania of many authors. Under treatment we find the bold advice: "Even though bodily prostration is apt to come on early and be profound I would not hesitate to advise, in the case of a robust man, free venesection." Dr. Osler says further that: "It is not at all improbable that some of the many cases of mania in which Benjamin Rush let blood with such benefit belonged to this class of affections." We are afraid that this advice will shock alienists as a class, and the

more so that no reference is made to feeding, the sheet anchor of the routine treatment of this trouble. Dr. Osler does not inform us whether he has actually performed venesection in a case of this kind; for the benefit of the patient we hope he never will. We may add that the statement as to the uniformly fatal character of Bell's mania must be accepted as correct in regard to American institutions, but it could not be made in so unqualified a manner in respect of the acute delirious mania of our asylums in Britain.

Acute chorea is treated at length. Here we find mention of the curious circumstance, viz., the rarity of the affection among negroes, and, it would appear, amongst the Red Indians also. The remarkable discrepancy between the views of French and English authors on the one hand, and of German authors on the other, as to the relation between acute rheumatism and chorea, is commented on and explained on the supposition that the connection varies greatly in different localities. Dr. Osler's own figures give from 15-21 per cent. for the rheumatic ætiology; Gowers gives 24 per cent.; the B. M. A. collective investigation committee raises the figure to a possible 32 per cent. Osler puts the question, a suggestive one—Are the articular affections of chorea truly rheumatic? Of special interest to us is the so-called maniacal chorea, chorea insaniens, of which he pictures an extreme case with death on the 11th day from the first development of the symptoms, but inasmuch as psychical disturbances are very common in chorea generally, *e.g.*, change of temper, emotional outbreaks, loss of powers of concentration, mental weakness, amounting even to dementia, hallucinations, etc., we may probably look upon these cases of maniacal chorea as extreme forms of this mental unhinging rather than as constituting a separate group. For clinical purposes, however, the subdivision is a useful one, and more especially is this the case since the mental symptoms may so overshadow the movements as to simulate a purely mental case. The simulation of Friedreich's ataxy is another interesting and practical point.

Under treatment we find that Dr. Osler advocates very large doses of arsenic. He says: "I have frequently given as much as twenty-five minims (of Fowler's solution) three times daily." He lays down precise rules with regard to the administration of the drug, and thus guarded we think that the pushing of the drug is clearly in the interests of the patients. It is the imbecility of practice

which, skipping from one medicine to another, never gives any a fair trial.

Under the treatment of epilepsy we find no mention of the value of chloral hydrate, given as a rectal injection in the status convulsivus vel epilepticus, yet its effect is striking, and it will be found far more useful than the bromides, and more efficient than chloroform inhalations.

Hysteria receives detailed consideration, and among the long list of diseases simulated by this affection we are glad to note that Osler insists on the close resemblance between true lateral sclerosis and its hysterical simulacrum, even to the development of a typical spastic gait, with exaggerated knee-jerk and ankle clonus. Gowers, it may be remembered, is chary of admitting the occurrence of a true ankle clonus; he assents, grudgingly it appears, to a spurious clonus. Buzzard, we believe, accepts the occurrence of typical foot clonus in hysteria. It is precisely in the occurrence of such very definite symptoms in hysteria, and of such very indefinite symptoms in some organic diseases—say, disseminated sclerosis—that the real difficulty of making a certain diagnosis lies. Among the rarer but most interesting symptoms which may occur in hysteria is fever. Dr. Osler mentions one case in which for 4-5 years a patient has presented an afternoon temperature of 102°-103°. This patient was well nourished, and though coming of neurotic stock did not herself present the hysterical stigmata. To no local condition could the fever be attributed. Then, even more deceptive, cases of fever with spurious local manifestations may occur. Thirdly, there are the cases of hysterical hyperpyrexia, about which mystery still hangs. The terrible difficulty of the matter lies further in this, that a patient with true organic disease, deeply situated, may be the subject of hysteria, and present this latter affection in typical form. There is hardly a physician of experience who has not come to grief in this matter.

A chapter on neurasthenia follows immediately. The term, as the author admits, covers a motley group of symptoms. Does this "motley group" deserve a separate name? We think not, and that Gowers is right when he says that to give such ailments as are here included "a definite name would involve more error than truth."

Dr. Osler does not include Grave's disease in the nervous section, though we think its affinities would be best satisfied by such an inclusion.



We must here end a criticism which necessarily is very one-sided or limited, for we have only allowed ourselves to consider one section. We hope we shall not have been credited with the desire to pick holes; indeed, we are possessed of too much admiration of the writer of this book to wish him anything but well, and accordingly to wish his book well. We think, however, that there will be room in future editions (may they be many!) for further development of the subsections on treatment in particular, for it is an essentially practical character which we should wish to see impressed on this work.

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*Wagner as I Knew Him.* By FERDINAND PRAEGER. London: Longmans. 1892. Pp. 334.

As the most intimate record which has yet appeared of one of the greatest personalities of the century this book has considerable interest for the psychologist. Although we are here told that at one time Wagner suffered from melancholia and the persecution of imaginary enemies, it is perfectly clear that—unlike his royal master, the “god-like youth,” as he called him, Ludwig of Bavaria—he does not come within the province of the alienist, as that province is usually understood. But he exhibited the abnormalities so often found in men of genius in a high and typical degree, and this record of an intimate friend is valuable both on account of its frankness and of its genuinely sympathetic attitude. Mr. Praeger was, indeed, as Wagner acknowledged, the first to give him recognition in England.

Richard Wagner was the youngest of nine children, his father dying six months after his birth. He was a small and fragile baby, and remained delicate as he grew up. He was troubled by attacks of erysipelas all his life, and also by terrible fits of dyspepsia, which prostrated him for days. His personal appearance is thus described:—“In stature Wagner was below the middle size, and, like most undersized men, always held himself strictly erect. He had an unusually wiry, muscular frame, small feet, an aristocratic feature which did not extend to his hands. It was his head, however, that could not fail to strike even the least inquiring that there he had to do with no ordinary mortal. The development of the frontal part, which a phrenologist would class at a glance amongst those belonging only to the master-minds, impressed everyone. His eyes had a piercing power, but were

kindly withal. Wagner lacked eyebrows, but nature, as if to make up for this deficiency, bestowed on him a most abundant crop of bushy hair, which he carefully kept brushed back, thereby exposing the whole of his really Jupiter-like brow. His mouth was very small. He had thin lips and small teeth, signs of a determined character. The nose was large, and in after-life somewhat disfigured by the early-acquired habit of snuff-taking. The back of his head was fully developed. Its shape was very similar to that of Luther, with whom, indeed, he had more than one point of character in common."

Although showing remarkable mental energy, he was by no means a musical prodigy, and was, indeed, throughout life a very awkward executant, never learning to finger properly. On the other hand he was always skilful in athletic and acrobatic exercises, and even at the age of sixty would stand on his head to show his agility.

His nature, as is so often the case with men of genius, was full of strange contradictions, of which Mr. Praeger gives many examples. The great defect of his character Mr. Praeger considers was lack of self-denial. His university days were marked by a degree of profligacy (though this is perhaps too strong a word) of which he often afterwards spoke with regret; but throughout life he was unable to resist his love of luxury, even when he was suffering from poverty. Wagner's long bills from his dress-maker (with whom apparently he had more dealings than with his tailor), that he was not always able to pay, are now well known. Mr. Praeger's explanation of this love of luxurious clothing is interesting; he puts it down to his very delicate and sensitive nervous system. "Spasmodic displays of temper were often the result, I firmly feel, of purely physical suffering. His skin was so sensitive that he wore silk next to the body, and that at a time when he was not the favoured of fortune. In London he bought the silk and had shirts made for him; so, too, it was with his other garments . . . for Wagner could not endure the touch of cotton, as it produced a shuddering sensation throughout the body that distressed him." By Mr. Praeger's own showing, however, this cause will not entirely account for Wagner's choice of texture; probably it was sexual, for his lack of self-control seems to have been very conspicuous in his relations with women. His first wife, who was very devoted to him, at last left him, after they had lived together some thirty years, apparently worn out by his infidelities. She died shortly

afterwards, and Wagner, who had been living in Von Bülow's house, apparently induces his host's wife to change her religion in order to obtain a divorce from her husband, and immediately afterwards marries her; a few months later a son was born. This is an episode which Mr. Praeger passes over very rapidly.

Wagner took a prominent part in the revolution of 1848; in later years, when this was alluded to in his presence, he would petulantly try to minimize or explain away his participation, but it was considerable enough to lead to his exile. During the early part of his exile in Switzerland his health gave way; "constantly brooding over his enforced isolation from his countrymen induced melancholia." (It is interesting to note that "the major portion of his work was done at times when the horizon was dark for him.") He used to go out on the mountains with his dog and "declaim against imaginary enemies, gesticulate, and vent his irascible excitement in loud speeches," glad of the dog's sympathy. He was "passionately fond of his dog," Peps, who, he said, assisted in the composition of *Tannhauser*; the dog howled at passages he disapproved of, which were in consequence altered. When the dog died his master's grief seems to have been much greater than when his wife left him. He wrote to Mr. Praeger: "He died in my arms on the night of the 9th-10th of the month, passing away without a sound, quietly and peacefully. On the morrow, midday, we buried him in the garden beside the house. I cried incessantly, and since then have felt bitter pain and sorrow for the dear friend of the past thirteen years, who ever worked and walked with me. That the same fate should befall your young dog at almost the same moment has deeply affected me." It would not be difficult to draw up a long list of men of genius, including several now living, who have had an equally strong affection for either dogs or cats.

Wagner died on the 13th February, 1883, at Venice, where another of the chief artistic personalities of the century, Robert Browning, also died some years later. He left behind him an autobiography, which Mr. Praeger, who was privileged to see it, tells us will show how truly Wagner wished to be known as he really was. It appears from the dates given in this book that Wagner wished this autobiography to appear in 1891. But whenever the period arrives for its publication it will be a valuable document for the psychological study of genius.

*L'Homme dans la Nature.* Par PAUL TOPINARD. ("Bibliothèque Scientifique Internationale"). Paris: Alcan. 1891. Pp. 352.

The study of anthropology is at present entirely neglected in our medical schools, notwithstanding the attention given to comparative anatomy which leads up to it and is of far less importance to the medical practitioner. This is unfortunate. The medical practitioner, the alienist above all, is constantly brought face to face with abnormal phenomena which can scarcely be clear to him, and which certainly he cannot accurately measure and describe, without some knowledge of the facts and methods of anthropology. Virchow, the greatest living anthropologist, has recently confessed that it was the difficulties he met with in the scientific examination of the insane which led him to take up seriously the study of anthropology. The difficulties which attracted a Virchow would daunt an ordinary man—whence, no doubt, the more or less contented ignorance of anthropology and psychology usually found among British alienists—and it is to be regretted that no convenient handbook has yet been written for the assistance of the medical student of anthropology.

M. Paul Topinard, the best known French anthropologist, and a medical man himself—a pupil of Baillarger as well as of Broca—could, no doubt, write such a small handbook, as in his great work, the "*Éléments d'Anthropologie Générale*," he has already written a most admirable manual of anthropology on a large scale, and his earlier and smaller "*Anthropology*" (translated into English), though in some respects out of date, may still be read with profit. In the present work, however, his aim, as the title indicates, has been more general; it approaches man from the zoological rather than from the medical point of view. With this limitation it may probably be said that "*L'Homme dans la Nature*" is the best general introduction to anthropology, within moderate compass, which at present exists. Mr. Tylor's little "*Anthropology*," an admirable book, is, it should be added, rather an introduction to the broader aspects of ethnography than to anthropology in its strict and more anatomical form.

After a brief historical introduction, chiefly condensed from his larger work, the author discusses clearly and fully the nature of anthropology as a pure concrete science, essentially anatomical in its basis, and considers its relations to biology, psychology, ethnography and sociology, then passing on to



questions of division and classification. Chapter V. is devoted to the consideration of methods of examination, observation and description; as examples, the nose and the hair are dealt with in some detail. Chapter VII. deals with racial characteristics, as shown by statistics of the colour of hair and eyes and exhibited by the cartographic method; maps of France are given showing the distribution of fair and dark hair, of fair and dark eyes, and of both taken together. In the succeeding chapter, after briefly discussing the question of personal equation, M. Topinard gives various practical instructions concerning the examination both of the living and dead subject. Chapters X. and XI. deal with craniometry; they form a fairly full but very clear and able discussion of the subject. The cephalic index is dealt with in detail, and reference is made to the growing tendency to brachycephaly of the European races, and to the apparent (but not inexplicable) paradox that while Germany is a predominantly dolichocephalic country and France a brachycephalic country, the inhabitants of Munich are more brachycephalic than those of Paris. "There is no escape from the fact that the Germans and the French are not races, but simple nationalities, engendered essentially by the chances of war and of diplomacy, and, in a subordinate degree, by language. Anthropologically we are formed of the same elements, and only differ in the varying proportions of the mixture." In Chapter XII. M. Topinard reaches the kernel of his subject—man's relation to the apes. With the help of a number of excellent illustrations and diagrams he discusses admirably the various changes that have taken place in the human brain and skull as it has risen from a lower stage, while in its present form some characteristics of the human brain ally it to one of the apes, others to another. He attaches especial importance to the great limbic lobe (the developmental significance of which was first discovered by Broca) in its evolutionary phases, since it establishes an abyss between the primates and the other mammals, and among the former gradually decreases in importance until in man it has been definitely appropriated by the "intellectual" brain. He concludes this part of the subject by this summing up:—"In short, among all the characters brought forward to distinguish man from the anthropoids not one is absolute. All may be reduced to questions of degree of evolution, the superior degree being sometimes found among the anthropoids, the inferior degree sometimes in man. The most important sign of perfection is the development of the third frontal convolution."

After dealing in Chapters XVII., XVIII., and XIX. with the erect attitude, the spinal column, thorax, pelvis, and the organs of prehension and locomotion, we come to an interesting though somewhat too concise, chapter on abnormalities—retrogressive and progressive—and rudimentary organs. Among the abnormalities considered are the third occipital condyle, which has been regarded as a representation of the median basilar condyle of the reptiles and birds, though the batrachians do not possess it; the jugular apophyses, which are occasionally found below the external anterior angle of the occipital, and which correspond to the paramastoid apophyses of dogs, sheep, and other mammals; the interparietal bone which normally unites with the occipital during the third month of intra-uterine life, but may persist as in some mammals; the vermian, or median occipital, fossa—found in the lower apes, as well as in the human foetus—to which Lombroso attaches so much importance as a degenerative character. The malformation of the pterion, which produces a temporo-frontal suture—a well-marked character of inferiority in the scale of human races—is considered by M. Topinard, after examining no fewer than 1,673 animal skulls from this point of view, to be only an accidental variation, simulating a reversive abnormality. Persistence of the median frontal suture is interesting, because it shows that every abnormality reproducing an anterior animal form must not be regarded as a reversion. Common among the lower mammals, and always present in the human foetus, this suture is rarely or never found in Australians, and in only about three per cent. Negroes, while it is present in about 10 per cent. Europeans. It is, therefore, in man a character of superiority, due to the development of the anterior parts of the brain. The chief progressive abnormality dealt with is the tendency to the diminution in the number of the teeth.

In his cautious concluding chapter to this able and interesting book, M. Topinard formulates briefly the results of natural history as applied to man. It is not probable that man has descended from any of the anthropoid apes, as they exist to-day, though there is less objection to the Chimpanzee than to the others; there are many arguments in favour of descent from a Miocene ape; there is something to be said for the theory of Prof. Cope that the Lemurs, having themselves issued from the Marsupials, form the particular branch from which we have proceeded.

*Illegitimacy and the Influence of Seasons upon Conduct.*  
Two Studies in Demography (Social Science Series).  
By ALBERT LEFFINGWELL, M.D. London: Swan,  
Sonnenschein. 1892. Pp. 159.

Dr. Leffingwell's name is not known in England, but this book shows that he approaches the subject of demography in a scientific spirit not too common among us, and also that he possesses considerable literary power in the presentation of his results, though sometimes his style is rather melodramatic. It is thus that he enters on his subject: "Against the background of history, too prominent to escape the observation from which it shrinks, stands a figure, mute, mournful, indescribably sad. It is a girl, holding in her arms the blessing and burden of motherhood, but in whose face one finds no traces of maternal joy and pride."

The first study ("The first treatise in the English language upon the subject of Illegitimacy") deals chiefly with the relative frequency of illegitimacy in England, Scotland, and Ireland, and with the causes generally of its varying prevalence in different countries. The rarity of illegitimate births among the Irish, their extreme frequency among the Scotch, and the intermediate position of England and Wales is well known; but Dr. Leffingwell, with the help of excellent coloured maps of the three countries, brings out clearly the curious and very considerable variations between counties and groups of counties. Thus in Ireland the rate of illegitimate births per thousand is, in Connaught 7, in Munster 17, in Leinster 22, in Ulster 40. A map of the religion of the Irish population shows an exact agreement in colour; in Connaught the Protestants are 5 per cent., in Munster 6, in Leinster 14, in Ulster 52. The author, however, while recognizing religion as an important element, by no means suggests that Protestantism and vice are synonymous terms. In England a line drawn below Norfolk and through the middle of Wales will leave nearly all the counties with a high rate of illegitimacy above it, and most of those with a low rate below it. Essex (34 per 1,000), extra-metropolitan Middlesex (35), and Surrey (40) have the lowest rate of illegitimacy; Shropshire (82), Hereford (76), and Cumberland (76) have the highest rate. In a few cases a county stands very differently, accordingly as we consider the ratio of the illegitimate births to the births generally or to the number of unmarried women; this is especially the case

with Cornwall, where the illegitimate rate is high compared to the legitimate rate, but low when the total number of unmarried women are taken into account. This may, no doubt, be accounted for by the fact that there is a very large emigration of men from Cornwall. In Scotland the illegitimate rate is low along the west coast, very high along the border and in the north-eastern group of counties, including Aberdeen. That is to say, that those parts of Scotland that are most prosperous, where education is most widely spread, and which have been most productive of remarkable men, are precisely those where illicit unions are most frequent.

In regard to causation, Dr. Leffingwell briefly examines, only to dismiss them, several causes sometimes supposed to be of importance — poverty, ignorance, great cities. He then discusses more fully the three great causes to which, he considers, may chiefly be attributed the wide and apparently irreconcilable differences which exist in regard to the local prevalence of illegitimacy. These are (1) religion; (2) legislation, and legal impediments to marriage; (3) heredity, or the influence of race and ancestry. In regard to the influence of religion, Dr. Leffingwell has not much to say, and brings forward no definite conclusion, because, as he tells us, he purposes hereafter “to treat the larger question of its influence as a restraint against vice and crime.” Legislation, he considers, influences the rate of illegitimacy because every impediment to marriage tends to increase illicit relationships. When, in Bavaria, no young man was permitted to marry until he could prove reasonable ability to support a family, Bavaria stood first in Europe for the proportionate number of its illegitimate births. In Italy reliance on the religious ceremony alone has produced a large number of children legally illegitimate. In England the curious anomaly that the offspring of marriage with a deceased wife’s sister, legitimate in nearly every other part of the English-speaking world, are here illegitimate, is another legal cause for the production of bastards. It is, however, in the influence of race that Dr. Leffingwell finds the chief cause of variations in the rate of illegitimacy. “With few exceptions, the Northern nations of Europe, of Scandinavian or Teutonic origin, apparently show the strongest proclivity to those ante-marital irregularities of which illegitimacy is a sort of gauge.” In Europe the tendency is most prevalent in Norway, Scotland, Iceland, Sweden, Finland, Denmark, Prussia, Saxony, Austria, and



Bavaria. In England also, on the whole, the districts where Scandinavian blood is most marked (such as Norfolk and Cumberland—districts in other respects widely unlike) are those in which the rate of illegitimacy is highest; and the same is largely true of Scotland and Ireland.

In concluding his study of illegitimacy Dr. Leffingwell brings forward several other points of interest. He remarks, for instance, that the statistics of Denmark and of Sweden—the only countries where such statistics exist—show that illegitimate births are commonest, not at so early an age as one might imagine, but between twenty-five and thirty-five years. He also suggests that “quite independently of its ethical relations,” illegitimate unions “tend to level upwards the human race;” legal unions are usually upon a plane of equality; illegal unions tend to break down the barriers between class and class and between race and race, blending dissimilar elements into one great nationality. In this connection he has some interesting remarks about the American of the future: “One cannot travel through the States without noting that the thick lips, coal-black colour, low brow, and flat nose of the Guinea negro have almost disappeared in a hybrid race, with large admixture of English blood—changing not only the colour, but the intellectual capacity of the type; and I do not doubt that before half-a-dozen centuries have expired, the African will have as completely merged his race in the three hundred millions of the North American Continent, as Phœnician and Greek, Saracen, Roman and Norman have blended in the Neapolitan who basks in the sunshine on San Lucia.”

In the second essay—“The Influence of Seasons upon Conduct”—Dr. Leffingwell deals with six phases of human conduct in regard to which the action of a cosmic influence may be recognized:—(1) suicide, (2) crimes against the person generally, (3) murder and assault, (4) crimes against chastity, (5) attacks of insanity, (6) births, especially illegitimate births. This essay is slighter than the first, and scarcely takes sufficiently into account the considerable amount of work already accomplished in this field, notably in Italy.

In every country in Europe the maximum of suicides is reached in May, June, or July. In England and Wales fully sixty per cent. of all attempts at suicide occur in the warm months, and forty per cent. during autumn and winter. Almost the same proportions are found in Japan.

The influence of season in the production of insanity, as shown by the admissions to asylums, has long been recognized throughout Europe. Thus Dr. Ritti, of Charenton, writes in his last report:—"During the last ten years it is in the spring time that the admissions have been the most numerous; they have slightly diminished during summer, and reached their minimum during the last months of the year." The Lunacy Reports for Scotland give statistics accounting for over 38,000 admissions, which show precisely similar results. The maximum of admissions is reached in May, and there is then a gradual and almost unbroken descent to a minimum attained during December and January. There is thus a close coincidence between suicide and insanity, but, as Dr. Leffingwell points out, we are not, therefore, justified in considering the connection as causal; if we separate cases of suicide clearly due to other causes than insanity the same phenomenon is found. "We must look for some influence which is common to both phenomena as an exciting or predisposing cause of each." Crimes against the person are in this country commonest during July, August, and September, less common in the spring quarter, still more infrequent in the last quarter of the year, and least frequent of all in the first. The same influence is still more strongly marked, and in precisely the same order of gradation, if we take rapes and assaults against chastity. During the ten years 1878-87, 32 per cent. occurred in the third quarter, 28 per cent. in the second, 21 in the fourth, and 19 in the first. If we turn to the birth-rate, the maximum of legitimate conceptions takes place during March, April, and May in this country, as well as in Norway, Sweden, Belgium, Holland, and Italy, the minimum being during September, October, and November. In France there are most conceptions during June, July, and August. The illegitimate birth-rate shows an almost similar phenomenon in a more marked degree. With the help of diagrams Dr. Leffingwell brings out these phenomena very clearly.

What is the cause of this strange influence of the seasons upon human conduct? "I am inclined to believe," Dr. Leffingwell writes, "in the close relationship between the great mass of criminal, vicious, and passionate acts arising from the violence of the emotions, and an unsound mental condition. It need not be that complex and completely abnormal state which we call 'insanity.' . . . Either by

the gradual increase of solar light and solar heat, or else in some other manner quite mysterious at present, the breaking up of winter and the advent of spring and summer produces upon all animated nature a peculiar state of excitement or exaltation of the nervous system. Upon evidence, not yet sufficient for demonstration, I am disposed to believe that one effect, both in higher animals and in man, is an actual increase in the quantity of blood sent through the system, or that the heart in reality beats at a quicker rate, with stronger impulse, in April and May, than in November and December." Dr. Leffingwell does not bring forward any observations in support of this statement. It would not, however, be difficult to do so. Thus though opposed by Mr. Coste's daily investigation of the pulse rates through several years, it is supported by the investigations of Marey and others. Nor is there any reference to the mortality rates, although they have distinct bearing upon the question. The "theory of relation between solar influences and human conduct," Dr. Leffingwell formulates as beginning in the gradually increasing light and heat of spring and summer, producing upon men and animals increased heart action, and increased nervous action, which in time give rise to emotional exaltation, increased reproductive instinct, increased tendency to jealousy, increased combativeness, increased irritability of temper, sentimentality, mental depression, and enthusiasm for change; a perceptible and often very marked influence is thus exerted on the birth-rate, insanity, suicide, crime, divorce, duels, riots, revolutions, etc.

From the summary here given it will be seen that this little book, though sometimes rather slight and incomplete in its treatment, is full of interest and suggestion for the student of psychiatric and medico-legal questions.

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*Le Crime Politique et les Révolutions.* Par C. LOMBROSO et R. LASCHI. 2 Tomes. Paris: Alcan. Turin: Bocca. 1892. Pp. 296 and 428.

The French edition of this very suggestive and comprehensive work, in which the political criminal is treated in his relations not only to psychiatry and criminal anthropology, but to law and penology, has been considerably enlarged. The authors admit in the preface that the term

“criminal” should not rightly be applied to the political offender, as it may lead to confusion with the instinctive criminal, who is only rarely found in political movements. The political criminal “is almost never such from the moral and social point of view.” The authors consider that the question of political crime is becoming every day of less actual urgency; since among all European nations the political criminal is dying out. They make, however, a very important, though not always clearly marked, distinction between revolutions and rebellions; there is between them “the immense distance which separates evolution from a cataclysm, natural growth from a pathological tumour; there is antagonism rather than analogy.”

It is impossible even to enumerate the varied contents of these volumes, but a few of the chief headings may be mentioned. The first volume deals chiefly with philoneism and misoneism—terms invented by Lombroso to signify an extreme attraction towards novelties and an extreme repulsion from them—and the part they play in political crime; with the influence of climate and of temperature, hot countries (such as Spain, Italy, and South America) being more favourable to revolts than to revolutions, and colder climates (such as England and Germany) more favourable to revolutions than to revolts, while, as is well known, political risings nearly always take place in the hot months; the influence of barometrical pressure, geology, altitude, etc. In an appendix a summary is given of the recent (and still rather embryonic) investigations of M. Gouzer as to the possible influence of the moon. Taking a very large number of revolutions, revolts, suicides, and rapes, it appears that in all cases they are most frequent at new and full moon, and that the first quarter always gives the smallest number. The remainder of this first volume is taken up with the influence of food, famine, and alcoholism; the influence of race and of density of population, and the relations of political crime to endemic and epidemic insanity, suicide, hallucinations, epidemic criminality, etc.; and finally the social, political, and economic factors of political crime are considered.

The second volume deals with the individual factors of sex, age, rank, and profession. Women take a small part in revolutions but a large part in rebellions. Among the martyrs of Italian independence only 15 out of 966 were women; while 27 per cent. of the persons arrested for



taking part in the Commune were women. In religious revolutions, however, women have always taken a large part. By a diligent examination of De Rossi's collection of the mortuary epigraphs in the catacombs of Rome, the authors find that as many as 40 per cent. were those of women, and in the recent Nihilist movement, which has a certain mystico-religious tendency, women have taken a large part. The part played by instinctive criminals and the morally insane is then examined; and the anatomy, physiognomy, heredity, etc., of insane political criminals and regicides is dealt with, various examples being given, such as Cola de Rienzi, Masaniello, Louis Riel, etc. The part played by political mattoids, hystero-epileptic altruists, occasional political criminals, political criminals by passion, and men of genius is also discussed in several chapters. The concluding part is occupied with the legal and political applications of the subject and the prevention of political crime, a very large number of measures of social reform which are outside the domain of the alienist and anthropologist being here briefly dealt with.

A point strongly insisted on by these authors is the importance of the distinction between revolutions and rebellions. The abnormal and degenerate—whether insane or criminal—are found chiefly in the latter; those who take part in revolutions frequently stand higher than the average of their race. Lombroso found that among 100 anarchists arrested in Turin on the 1st of May, 1889, eight were insane; while Régis found that nearly 50 per cent. of regicides are insane. The authors find among anarchists a considerable proportion presenting a low type of physical organization. This result is confirmed by our own observation of anarchists resident in London, although an exceptionally high type is also not uncommon. On the other hand, Lombroso found among 521 “martyrs of our national resurrection” 454 normal, 64 abnormal, of whom 23 showed but few degenerative characters, only three (or 0·57 per cent.) a completely degenerative type. This is four times less than the proportion (estimated at 2 per cent.) found among the ordinary honest population. Revolutions have multiple and profound causes. Rebellions are closely connected with climate; they are favoured by hilly and hot regions and by periods of famine when not excessive. They are common among brachycephalic and dark races, and they are closely related to alcoholism and to hot seasons. They are frequent among senile peoples,

exhausted by ancient civilization, and among barbarous races. Revolutions, unlike rebellions, are rare in hot countries, and especially rare in plains and on a volcanic soil. They are especially common in maritime countries, or where communication is easy, and are, perhaps, somewhat more frequent on a Jurassic soil. They are found among races of elevated stature, fair and dolichocephalic, and especially among mixed races. They are more common among certain races than among others. Thus in France they are most common in the Ligurian and Cimbric districts. They are favoured by the presence of great industrial centres. They are in direct relation with the increase of criminality, insanity, and neuroses, but the passionate and persons of genius take a larger part in them than the insane or criminal. Always rare, they require a long preparation, and are ultimately successful, even though the leaders perish. Rebellions arise among people who are not yet ripe for revolution; they are sometimes the first sign of revolution. "In short, revolutions are physiological phenomena; revolts are pathological phenomena." It sometimes happens, however, that it is impossible to decide at first whether a movement is a revolution or merely a rebellion, because at its outset every revolution has the appearance of a rebellion; only time can decide. "Thus to-day we do not yet know whether the anarchists are rebels or revolutionaries."

Such are some of the chief points brought out in this many-sided and suggestive, though, from the novelty of the subject, necessarily inconclusive work. It would require a much longer review to show the breadth of its range and the variety of subjects dealt with. To this breadth and variety it is doubtless due that the arrangement of the material sometimes seems to be defective, and that the same ground is sometimes gone over twice. There are a large number of trifling errors, especially in the spelling of proper names; it is to be feared that the authors rather than the translators are sometimes responsible for these. They are clearly, however, not responsible for the index, which is a delightful comedy of errors; among numerous other peculiarities, only less singular, the Chicago anarchist, Schack, is identified with the Persian Shah. On p. 88 of the first volume English readers will find novel information in the following passage:—"The Fen country, in the counties of Lincoln and Cambridge, an uncultivated region covered with steep rocks, and an ancient resort of brigands and rebels, became at the

epoch of the Norman Conquest the last refuge of the Anglo-Saxons. Those who retired thither long maintained their independence, protected by the rocks which rendered the country almost inaccessible."

Against minor blemishes must be set the large number of valuable portraits, diagrams, and maps. Thus one series of eight diagrams shows how political risings in Europe and America have always taken place in the hottest months. A coloured map of Europe shows the relative distribution of revolutions in Europe. Six coloured maps of France enable us to compare orographic characters, density of population, racial distribution, prevalence of agricultural or industrial elements, the distribution of genius, and the distribution of political parties.

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*Clinical Lectures on Mental Diseases.* By T. S. CLOUSTON, M.D.Edin., F.R.C.P.E. Third Edition. London: J. and A. Churchill. 1892.

*Insanity and its Treatment: Lectures on the Treatment, Medical and Legal, of Insane Patients.* By G. FIELDING BLANDFORD, M.D.Oxon. Fourth Edition. Edinburgh: Oliver and Boyd. London: Simpkin, Marshall and Co. 1892.

Dr. Clouston is to be congratulated on the fact that his lectures have reached a third edition in the course of less than nine years. The author informs us in his preface that many practitioners have requested him to add a lecture on insanity as a whole, with especial reference to practical treatment and the right employment of sedatives. The result is to be found in Lecture XX., the contents of which may be gathered from the following:—Insanity as a disease; urgent questions to be faced as to causation, heredity, diathesis, former diseases; concealment of symptoms; mental symptoms; bodily symptoms; examination of patient; diseases that simulate insanity; dangers; treatment; nursing; home treatment; treatment in lodgings or hired house; asylum treatment; why a patient should be sent to an asylum; legal forms; food and feeding; food-medicines; alcoholic stimulants; tonics and nerve stimulants; exercise and fresh air *versus* rest; occupation and amusements; hypnotics, sedatives, and motor depressants; general prin-

ciples of use ; dangers of abuse ; what do we desire to attain ; opium in melancholia ; paraldehyde ; sulphonal ; the bromides and cannabis indica ; hyoscine.

This will, no doubt, be a popular and useful chapter. One observation prompted by Dr. Clouston's large experience deserves quoting for the instruction of those who insist upon having certain single patients removed to asylums in accordance with a too rigid rule.

"I have treated almost every kind of case, from acute, violent, raving mania to the mildest melancholia, in private houses and in lodgings, and very many with success. It is largely a question of house, nurse, and money. It is, of course, very expensive, seldom coming to less than at the rate of seven pounds a week all told, and often much more if three or four nurses are needed."

The disadvantages, in addition to the expense, are not overlooked, such as the want of constant medical supervision, the risk of disturbing neighbours, and the monotony of life. The first objection does not, of course, apply to residence in the house of a medical man. Nor are neighbours disturbed in houses situated in the country, nor, indeed, always in houses in towns. The fact is no rule can be laid down in the matter. The author expresses himself strongly in regard to exercise and fresh air *versus* rest—we think almost too strongly in objecting to rest in bed. It may not be necessary or desirable to put every patient to bed for a day or two on admission for observation and quiet, but we regard it as anything but an irrational mode of treatment. On medical treatment Dr. Clouston observes that anything that implies that "medicine out of the bottle" only, will cure the disease is utterly to be deprecated."

The author justly maintains that "few cases of mental disease should be treated by hypnotics and sedatives alone." He points out the necessity of deciding whether a pure hypnotic is wanted or a general sedative. He puts "paraldehyde and chloral as the types of pure hypnotics ; sulphonal as a hypnotic sedative ; bromides and their combinations with cannabis indica, and hyoscyamus as the types of sedatives and diminishers of reflex irritability, cerebral and spinal ; and hyoscine as the type of drug that especially depresses the functions of the cortical motor centres" (p. 689). Dr. Clouston once believed in chloral far more strongly than he does now. He has used paraldehyde and prefers it to any hypnotic which he has tried. The appetite is not



interfered with, nor does it disturb the bowels or cause headache. The dose to begin with is forty drops, or a drachm, increasing it up to two. He has given three, and even four, drachms, and in one case six. Recovery from the effects of an ounce given by mistake is recorded. Sulphonal is Dr. Clouston's second best hypnotic and sedative in doses of from ten to forty grains, and even a drachm, but very rarely. In doses of fifteen grains twice a day it is a useful sedative. Above all, "it does not excite a craving for its continuance, and it does not prolong the brain disturbance" (p. 694).

These references will suffice to show the practical character of this book. A series of axioms close the chapter and the book, which are well calculated to guide the practitioner in the right way.

The fourth edition of Dr. Blandford's lectures marks the wide circulation of a favourite book. He brings it up to the level of our latest acquisitions, especially in regard to new drugs. It may be mentioned that he recommends the use of paraldehyde as well as Dr. Clouston, having "found it to produce sound as well as pleasant sleep, the patient waking without depression or discomfort." His experience of sulphonal has also been favourable.

The new Lunacy Act has rendered it necessary for Dr. Blandford to introduce much new matter into his book which will be found a useful and reliable guide in the difficulties which have been created by recent legislation.

Dr. Blandford enters upon the relations between general paralysis and syphilis in a judicial spirit, and refers the reader to Dr. Jacobson's article on the subject in the "*Journal of Mental Science*," April, 1892. Dr. Blandford is not a convert to the opinion that the relation of cause and effect is established in those cases of general paralysis in which syphilis occurs, and he observes, "Certain it is that anti-syphilitic treatment never cures general paralysis in syphilitic patients" (p. 323).

Dr. Blandford acknowledges his indebtedness to the "*Journal of Mental Science*," "which constitutes a mine of information in this special subject, having, I believe, no equal." Its utility, we may add, has been vastly increased by the index to it, which Dr. Blandford himself prepared.

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*Les Maladies de L'Esprit.* Par le Dr. P. MAX-SIMON.  
Paris, 1892. J. and B. Bailliere et Fils.

The author is favourably known by his "Monde des rêves" and other works. Although this is a small book, it covers the ground to a remarkable extent. He commences with hallucinations and illusions, and, in a note at the end of the volume, he studies the sensations which are produced by anæsthetics, a subject deserving more study than it has received. He finds that, after a certain number of inhalations, ether produces a state of semi-intoxication, in which pain disappears or is lessened. If inhalations are continued, certain abnormal perceptions are experienced. The sense of hearing is especially affected. It is singular that at the same time there is a sound like a murmur, and if the eyes are shut violet colours are seen, showing that the retina is affected; with more ether, violet passes into green, then there are in addition reddish marks. It is when the sound is the most shrill that the sensation of red is experienced. The effects of chloroform and nitrous oxide are detailed. Other chapters describe, in order, the various forms of mental disorder, mania, melancholia, megalomania, delusions, etc. Moral insanity, of which he gives several examples, is referred to. We cannot, however, follow the author in detail, and must refer the reader to the book itself.

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*De la Législation sur les Aliénés dans les Iles Britanniques.*  
Par le Dr. RENÉ SEMELAIGNE. Paris, 1892.

It must be admitted that it is a great compliment to English legislation for the insane, that a French physician should be at the trouble to publish a *résumé* of our Acts of Parliament. The last Lunacy Act of 1891 is included. The author has executed his work in a very creditable manner. He visited England and made himself acquainted with the condition of the insane in many of our asylums, and published after his return an able and impartial account of the non-restraint system. To this we referred at the time in the Journal, and mentioned the circumstance that M. Semelaigne is a collateral descendant of Pinel. The brochure before us does not admit of review. We can only congratulate the author on the skilful way in which he has presented the subject from the Act of Edward II., 1324, to the present time.

*Étude sur quelques Symptômes des Délires Systématisés et sur Leur Valeur.* Par le Dr. A. MARIE. Paris, 1892.

M. Marie has already written several clinical articles, including one on the sight of idiots, and another on the ætiology of general paralysis. Systematized delusions have a great fascination for French alienists. Some interesting cases recorded with great care, and with several illustrations, make the memoir of very considerable value, which indeed is quite out of proportion to the size of the publication. Everyone studying the subject of delusional insanity ought to obtain this clinical study.

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*A Manual of Autopsies. Designed for the use of Hospitals for the Insane and other Public Institutions.* By J. W. BLACKBURN, jun. Philadelphia: P. Blakiston, Son, and Co. 1892. With Plates.

We are glad to see that the Association of Medical Superintendents of American Institutions has issued this Manual. Dr. Blackburn is the pathologist to the Government Hospital for the Insane, Washington, and was requested to prepare a post-mortem manual with a view to its adoption by that Association. It is a *multum in parvo*, and cannot fail to be of great use to asylum men. We commend it to our readers, and hope it will have an extensive circulation in England as well as in the States. It certainly deserves it. The illustrations are excellent.

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### PART III.—PSYCHOLOGICAL RETROSPECT.

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#### 1. *Retrospect of Mental Philosophy.*

By W. C. COUPLAND, D.Sc., M.A.Lond.

Dr. Sully's "Outlines of Psychology," published eight years ago, supplied a want that had long been felt by students of mental science in this country. Up to that time there existed no treatise in our language that fairly represented the spirit of modern inquiry in the ever-extending sphere of psychological science. The works most in demand, such as Prof. Bain's "Senses and Intellect," "Emotions and the Will," Mr. Spencer's "Principles of Psychology," Dr.

Maudsley's "Physiology of Mind," and the late G. H. Lewes's "Problems of Life and Mind," either intentionally presented the science from partial points of view or did not attempt to furnish a synthetic treatment, such as a student, anxious to obtain a general view of a department of knowledge before entering upon special questions, naturally desires. Dr. Sully's book accordingly met with the full success it deserved. Having the beginner always in view, the author employed plain and simple language, led the reader on gently from step to step, and dealt very sparingly with controversial points. At the same time, the results of the latest research were sufficiently appropriated, and any one thirsting for fuller knowledge had only to follow the hints supplied at the close of the chapters towards wider study.

During the last eight years, however, whether stimulated by Dr. Sully's example or not, a number of writers have entered the field, and works for both tyros and advanced students have been produced of great excellence. It is sufficient to mention the names of Dewey, Ladd, Ward, Baldwin, James. It is evident that psychological science has gained enormously of late in public favour, and not unlikely will, in a very short time, receive adequate recognition as an essential branch of a liberal education. Dr. Sully, who had, in a way, played the part of pioneer in this pedagogic movement, has not been content to rest on his laurels, but has just produced a work of larger scope than his former volume, giving an account of the facts and laws of mind, with abundant criticism of the theories and researches of distinguished investigators, both English and foreign. Although, perhaps, among those who, like the ordinary school-teacher, are concerned with psychology only in its application to practice, and, in consequence, desire an acquaintance with bare generalities, the "Outlines" will still retain its popularity, the present work\* will undoubtedly receive the preference of the thorough student. In the interval which has elapsed between the publication of the two works, the author himself has not stood still, and has seen cause to modify or develop his views on several points of prime importance. Moreover, with more space at his command, Dr. Sully has brought into greater prominence topics which

\* "The Human Mind: A Text-Book of Psychology," by James Sully, M.A., LL.D., Examiner in Mental and Moral Science in the University of London; author of "Illusions," etc. In two volumes. Longmans, Green, and Co. 1892.



have previously hardly received their due, and has discussed matters which before had been wholly passed by.

The book is divided into five parts:—I., Introductory; II., General View of Mind; III., Intellection; IV., The Feelings; V., Conation or Volition. The first part treats of such topics as the aim, scope, data, and method of psychology, and the physical base of mental life. The scope of the science is clearly defined, and marked off with exactitude from the dependent practical sciences, logic, ethics, and æsthetics, as well as from theory of knowledge or philosophy in the proper sense. A vast deal of confusion is hereby avoided, for misapprehension as to the precise extent of psychology has led to the burdening of scientific manuals with disquisitions of a metaphysical character, as well as to indistinctness in the treatment of special points. The same care is manifested in the summary of the methods appropriate to psychological investigation. Dr. Sully contends rightly for the employment of the often disparaged method of introspection, insisting on its use as fundamental, if we are to have any real acquaintance with facts of mind, while allowing the utmost weight to the objective and experimental methods in controlling details and generally enlarging the view. Throughout the book indeed the equal attention paid to self-observation, or the older method of psychical analysis, on the one hand, and the resources of physical and physiological observation and experimentation on the other, is well maintained. The result is no "physiological psychology" in the stricter sense, but at the same time no physiologist can complain that the biological aspect of mental science has been in the least slighted. Although neurological manuals are sufficiently accessible we cannot but think it a pity, however, that the sections on the nervous system are entirely unillustrated either by drawings or diagrams. The same remark may be made *à propos* of the senses.

The "general view of mind" gives an account of the psychical elements which are summarized as sensations, element of feelings, primitive movements, and psycho-physical complications, followed by an examination of attention and the process of mental elaboration. The distinct separation of sensation from perception has become common in psychological manuals, but the place given to sensation by Dr. Sully before the general process of attention and the elaborative processes of differentiation and integration, which are themselves interpolated between sensation and sense-perception, is not usual.

Dr. Sully differs strikingly here from Prof. Baldwin, who goes so far as to treat sensation as an apperceptive function of intellect, while Prof. Wundt, with whose treatment of sensation and perception he is in general accord, defers the consideration of attention (and consciousness) to a much later stage. It appears to us a little doubtful whether it is desirable to sever sensation so completely from perception as is done by Wundt and our author. Dr. Sully himself admits the severance to be largely artificial, and the procedure is perhaps justifiable only as lightening the difficulties of the learner. Apart from certain details of logical order it is, however, in any case highly desirable that a full discussion of the factors involved in mental elaboration should take precedence of their concrete exemplification, and we regard it as a happy idea of the author's to explain the significance of differentiation (discrimination), assimilation, and association before entering on the treatment of memory and thought in particular. Part III., *Intellection*, deals with perception, reproductive and productive imagination, and the processes of thought, or conception, judgment, and reasoning. Dr. Sully's views on the vexed question of the nature of our space-consciousness do not differ from those expressed in the "Outlines." He still maintains, in opposition to Ward and James, that the space-percept is not given in any form of passive sensibility, and, with the Berkleian empiricist, that motor consciousness is an essential component of what is in truth anything but an original datum of sense. Apart from movement the closest we can get to the space-percept is apparently (as suggested by Stumpf and endorsed by the writer) the apprehension of massiveness of volume, such as we have in low musical tones.

Coming to memory and the laws of suggestion, Dr. Sully is equally judicious as in the question of space. As in regard to that problem he declines to side with either of the extremists, those who assume an original intuition of space, and those who regard it as nothing but succession of movements, but holds extension to be a development of a mode of consciousness rendered possible by certain fixed nervous conditions in the organism and experiences of motility; so in the revival of images he declines the one-sided course of dispensing with either contiguity or similarity as principles of suggestion, but while giving the greater prominence to contiguity insists on the indispensable function of assimilation, and the cognition of likeness in the midst of differences. Suggestion by contrast is ruled out as a third primary

principle, in accordance with current practice, but the stress is laid by our author on the fact of difference rather than of similarity, as by not a few theorists of repute. Perhaps the latter factor is hardly done justice to, for the resemblance of two widely contrasted images or ideas seems as immediately present to the mind as their extreme divergence. We fail to be convinced by the averment, "so long as we are interested in a relation of contrast, there is no room for any consciousness of similarity;" for the question is whether we *could* be interested in a "relation of contrast" if we were not equally aware of a relation of similarity. The cementing bond is after all the emotional effect produced by the opposed pair, and that surely is strong in proportion to the perception of extraordinary difference within ordinary resemblance or oneness.

The representation of time is dealt with at some length, a point to which attention should be called, as it commonly gets either no, or a very perfunctory notice, in the ordinary manuals. The points of agreement and difference with the space-consciousness are neatly stated. The account of conception is a considerable improvement on that given in the "Outlines." The nature of intellectual comparison is thoroughly examined before the steps of thinking are considered. The treatment of thought altogether is more distinctly psychological than in the earlier work, where the logical way of looking at the intellective function is somewhat too prominent. Part III. concludes with an excellent section on "Intellection or Knowledge." The various phases of belief are carefully described, and the distinction between belief and knowledge proper clearly explained.

This completes the first volume, dealing with the foundations and the rational side of mind. The second volume is devoted to an account of feeling and volition, closing with fourteen appendices treating of the history of certain leading topics, or touching on the philosophical aspect of various psychological doctrines.

The author does not enter so fully into the description of emotional states as Prof. Bain, but supplies what is usually wanting in psychological treatises—an ample and careful consideration of the conditions and laws of feeling generally. The conditions of pleasure and pain (so-called *neutral* feelings, or feelings without "tone" not being admitted) are considered under the headings—(a) Conditions in the stimulus; (b) Variation of stimulation; (c) Complication of



activities. It is contended that all attempts thus far to resolve the qualitative distinction of pleasure and pain into quantitative difference in the stimulus have failed. The effect of change in determining the character of feeling is well shown, and the diffusion of feeling as resulting in "a kind of unconscious sympathy or *consensus*" is stated with its limitations. The development of emotions is traced, and the instinctive and associative factors adequately recognized. Here, as elsewhere, the psychical phenonema of animal and infant life are effectively drawn upon, and the generalizations of leading evolutionists, as Darwin and Spencer, are utilized and independently criticized. The emotions are discussed under the heads:—(1) Specialized Instinctive—egoistic} and social, such as fear, anger, self-feeling, attachment; (2) Concrete Representation or Sympathy in its various forms and grades; (3) Actual Sentiments, the intellectual, æsthetic, and ethical sentiments. The account of these last strikes us as particularly good, the examination of the moral sentiment being a veritable *multum in parvo*, as well as just and free from dogmatism.

Conation or volition is treated at about the same length as feeling, and is not the least valuable part of the work. For an account of will in all its degrees, from the rudimentary manifestations of voluntary movement to the most finished form of self-control and rationalized conduct, it would not be easy to find a parallel equally fair and complete. Students will be grateful to the author at this stage, and throughout the book, for the pains taken to bring forward and subject to close scrutiny divergent views of psychologists. It is a point of serious debate at the present moment what precise relation so-called volitional consciousness holds to other active phases of mind, as ideation and cognition. Older classifications of ultimate mental functions tended to a duality of thought and will, with submergence of feeling. Now will is falling, according to the theorizing of certain prominent thinkers, into a subordinate position, and there is a growing tendency to regard the peculiar *nisus* of conation as simply the mark in consciousness of the detaining power of particular ideas. As Prof. James recently writes:—"In closing in upon the more *intimate* nature of the volitional process, we find ourselves driven more and more exclusively to consider the conditions which make ideas prevail in the mind. With the prevalence, once there as a fact, of the motive idea, the *psychology* of volition



properly stops. . . . The *willing* terminates with the prevalence of the idea." In opposition to any view which assigns a derivative character to will, Dr. Sully holds that active impulse has not to wait upon the presentations and their interactions, but is an original element of our mental constitution. This primitive active tendency takes two directions, either outwardly as conscious muscular action, or inwardly as attention. In working out the details of early voluntary action, Dr. Sully follows mainly in the wake of Bain. Although not assigning the late place to desire in psychological development as Prof. Bain, our author is at one with him on the debatable point whether all desire is initiated by prospect of pleasure. The few pages devoted to this point are decidedly subtle, but fall short a little of perfect cogency. The time is, perhaps, hardly arrived for final decision, and the main interest in the discussion is after all ethical rather than psychological.

The concluding chapter is on "Concrete Mental Development: Individuality, Normal and Abnormal Psychoses." This chapter, though perhaps brief, having regard to the importance of the topics, is very much in place in a treatise aiming at an inclusive treatment of the life of mind. There are some good remarks on the relations and deviations of typical and individual development. Comparative measurement of individual psychical capacity, it is conjectured, will be rapidly advanced in the near future. At present there is little to refer to beyond Mr. Galton's tentatives and anthropometric schemes. We may take this occasion to remark that Dr. Sully is quite alive to the value of experiment in psychology, as exemplified in the measurement of discriminative sensibility, and the ascertainment of reaction-time in the process of attention, intellectual judgment, and volitional choice.

There are brief but pregnant references to *abnormal* aspects of mind. Dr. Sully was doubtless afraid of overloading his work, or, as the author of the admirable monograph on "Illusions," in the International Scientific Series, he was specially competent to have furnished an interesting summary of the phenomena of dreams and hallucinations of the healthy mind. The phenomena of hypnotism have too recently come within the province of the scientific investigator to call for examination in a general work on psychology, but the topic is not entirely ignored. As for the pathology of the mind, Dr. Sully has achieved all the ordinary reader

will desire by his half-dozen pages and references to standard writers like Maudsley, Mercier, Bevan Lewis, and Ribot.

The appendices will be valued in particular by the academic student. Many topics of mental science cannot be properly understood without some knowledge of the history of their investigation, while such information in the text is apt to be distracting and tiresome. Accordingly the various classifications of mental functions adopted at different times, various renderings of the laws of association, theories of time and space, of pleasure and pain, are well relegated to an appendix. And even more is this advisable in the case of certain great philosophical questions, the relationship of which to ordinary mental activities is of the closest, and which cannot be passed over without leaving an uneasy feeling in the mind of the reader that a psychological treatise which ignores them is a mutilated one. This applies to such subjects as external perception, nominalism and realism, objective knowledge, free-will, duty, and the problem in which empirical doctrine culminates—mind and body. In most of these appendices Dr. Sully has been particularly happy in seizing upon the salient points, and presenting important differences of view clearly and impartially. Readers with a speculative bent will be at no loss where to seek for further light, as the references to authorities are both abundant and well chosen.

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## 2. *German Retrospect.*

By W. W. IRELAND, M.D.

### *Deceptions of Memory in the Insanity of Multiple Neuritis.*

Dr. S. S. Korsakow has already described a form of amnesia in insanity following upon multiple neuritis, or, as he styles it, polyneuritic psychosis, and in the present paper ("Allgemeine Zeitschrift für Psychiatrie," xlvii. Band, 3tes and 4tes Heft) he describes a particular kind of delusion of memory which sometimes accompanies this form of insanity. It consists in the patient believing that he bore a share in some actions with which he never had anything to do. He will relate what he did in events which have happened in past times or distant places, and of which he has only heard or read.

Such delusions, Dr. Korsakow observes, sometimes are met with in paranoia, in melancholia, in periodical mania, in general

paralysis, and in senile dementia; but he has found them most frequently in polyneuritic psychosis. Sometimes the delusions of memory are fixed, at other times they will substitute one narration for another, covering the same period. In the cases which Dr. Korsakow met with, the patients were apt to have these false reminiscences connected with their favourite pursuits, such as hunting or drinking. In many cases the delusions of memory were connected with deaths or burials. Dr. Korsakow describes at length one patient 53 years old, affected with valvular disease of the heart, who had suffered from a severe attack of typhoid fever. He had remained for days comatose, and when consciousness returned the memory was found to be deeply impaired. There was also great prostration of strength, and recovery was slow. Pain was felt on pressure upon the nerve trunks, and the patellar reflex was diminished. On a slight examination there was no appearance of mental derangement, but it was observed that his memory was full of false reminiscences, which mingled with those of real events. One delusion especially had strong possession of his mind. He remembered that a young man, to whom he owed a debt of gratitude, had died in the house, and he felt it was his duty to bury him. On being assured that there was no dead person in the house, he asked to be allowed to look through it. On being shown that there was no dead body anywhere, he said that the body must be in another house in Moscow, which he indicated. He was taken to the house and asked the porter, who said that no person had died there. On returning home, he remained for a time sunk in thought, and then modified his delusion. He said that the young man must now be buried, and wished to pay his rent and the cost of his funeral. He remembered distinctly hiring the house for the young man, and the other circumstances. In the hope of satisfying his mind, it was arranged that the porter should say that the occupier of the house had changed to another in the same street, where lived a doctor who had agreed to receive payment for these imaginary transactions. The man's conscience being eased in this way, he was quieter for a time, but soon afterwards wanted to go back to inquire about some articles belonging to the young man. At last he went to the door of the house, rang the bell, and asked to see the gentleman, but was told he had gone abroad. About the same time the man's intelligence had so far returned that he was able to go back to his employment. He ceased to talk about his delusions, though it seemed doubtful whether he had lost faith in them. Sometimes he speaks about going to travel, and mentions the name of the town where he was told the gentleman had gone. It appears that the patient's children had been ill, and that he had been afraid of losing them, and that he had lodged them in the neighbourhood of the street where he had placed the death of the young man for whose lodgings and burial he had paid. Dr. Korsakow

describes another case of a similar character occurring in a woman who had also suffered from typhoid fever. At the end of his paper he presents the following conclusions:—

1. In polyneuritic psychoses deceptions of memory, based upon the same delusion, are not infrequent.

2. Under this delusion the patient may relate things of an incongruous character, but sometimes his remarks are quite coherent.

3. One of the most frequent characteristics of the delusion, and of deceptions of memory in polyneuritic psychoses, is the idea of someone's death, of the dead person, and of the funeral.

4. Sometimes the false reminiscences and the insane ideas obtain such great power over the attention of the patient as to give the appearance of partial insanity.

5. The false reminiscences in polyneuritic psychoses are generally firmly rooted in the memory of some real event.

6. These traces of memory may be held to indicate the continuance of nerve function, though in a feeble degree.

7. We may, therefore, assume that these latent traces unite themselves to a healthy group of associated ideas.

8. False reminiscences most probably arise owing to the union of the traces in the unconscious sphere of the mind with the already existing groups of association. These associations thus formed may enter into consciousness, and, presenting themselves as reminiscences, delude the mind.

9. In all probability defects in the processes of idea association are necessary for the existence of such groups of association causing deceptive memories. In this way union becomes possible with lapse of some links in the chain of association which does not fail in the normal conditions of the mind. On this account deceptive reminiscences are most frequent in psychoses in which there is an alteration of the conjunction of ideas.

#### *Insanity Treated by Hypnotism.*

At the meeting of German physicians at Weimar in last September ("Centralblatt für Nervenheilkunde und Psychiatrie," October, 1891) Dr. Binswanger reported upon his trials of the therapeutic value of hypnotism. He strongly deprecated hypnotizing by the attendants in asylums. As a therapeutic agency he had hitherto found suggestion often fail, but it is most likely to be useful in hysterical cases. By too frequently repeating hypnotic experiments, he had in some patients seen the symptoms aggravated instead of improved. Dr. Krafft-Ebing agreed in general with his colleague. Hypnotism should be used only as a means of subjecting patients to suggestion. He observed that many insane persons could not be hypnotized. In general it was only those who retained a certain amount of lucidity, attention, and concentration of thought who could be hypnotized. Suggestion



might be used to combat insane feelings, and trains of thought, and abnormal longings and propensities, and especially sleeplessness. It might be used against imperative ideas, but did not appear to promise much against delusions and hallucinations. He had no great faith in the remedy, and had been induced to make experiments, mainly from the importunity of relations or of the patients themselves. His most favourable results were in melancholia without delusions, and alcoholic and hysterical insanity. Drunkards and dipsomaniacs were in general easily hypnotized. The evil effects Dr. Krafft-Ebing had noticed from hypnotism were the tendency to fall spontaneously into the hypnotic state, and increased susceptibility of the nervous system. Against the first disadvantage suggestion might be used and hypnotism should be suspended. The physical method of hypnotizing (Charcot's) seems the most liable to produce bad effects. On this account Krafft-Ebing prefers Bernheim's method.

*An Asylum in Japan.*

Dr. Hasime Sakaki gives in the "Allgemeine Zeitschrift für Psychiatrie" (xlviii. Band, 1 and 2 Heft) some statistics from the asylum at Tokio. The number of patients treated during the year 1888 and 1889 was 423 males and 238 females = 661. Of these there were discharged recovered 121 males, 55 females = 176. Improvement was observed in 187 males and 115 females. There died 74 males, 42 females = 116. The cases of general paralysis were two per cent. of the whole.

The disease called kakke beriberi, akin to multiple neuritis, is common in Japan. It appeared as a complication of insanity in 7.5 per cent. of the cases, and was a cause of 19 deaths, that is 16.4 per cent. of the whole mortality. Of those affected in the asylum with beriberi 59.3 per cent. died.

Dr. Sakaki shows that insanity in Japan is much more prevalent amongst married people than the unmarried. This he supports by comparing the number in his asylum to the statistics of the general population. He says it would take too long to explain the causes of this surprising result.

Some of the patients admitted were taken from the Buddhist temples, for there are many people in Japan who still believe that insanity is sent as a punishment for some great sin, or the effect of possession by animals such as the fox or the dog. On this account they go to the temples to be cured by readings from the Buddhist Scriptures.

*Legal Provision for Epileptics in Prussia.*

We learn from the "Centralblatt für Nervenheilkunde und Psychiatrie" (October, 1891) that an important change is imminent in the condition of epileptics in Prussia. In the law of 1875 the

care of lunatics was committed to the provincial unions, but neither epilepsy nor idiocy was provided for. Pastor Bodelschwingh, to relieve necessitous cases, formed the asylum at Bielefeld, in which he showed great zeal and power of organization. As many as 1,300 epileptics were collected and cared for; but insufficient provision was made for medical treatment. Other institutions for the cure of epileptics sprang into existence in different parts of Germany, principally supported by private contributions. In May, 1890, a law was introduced by the ministry into the Prussian Parliament to secure the aid of the State for such epileptics as were in a condition to need assistance, and it is decreed that by the 1st of April, 1893, asylums should be erected for such patients. It is, therefore, very desirable that the provincial councils should have some idea of the number of epileptics likely to demand such assistance; but for this purpose the available statistics are by no means to be trusted. In the projected asylum it will be found necessary to have training schools for young epileptics whether idiotic or not. Of course, separate classes would be required for those whose intelligence had not suffered much. These should be like open hospitals and be under medical superintendence. Chronic insane epileptics might be either sent to ordinary asylums or special institutions erected for them.

In the same number of the "Centralblatt" M. Lacour points out the deficient care of epileptics in France. There is a compartment devoted to epileptics in the hospital at Lyons, and three institutions for epileptics under clerical management in other parts of France. Epileptic children are also admitted into the idiot department of the Bicetre, which is conducted with so much spirit and diligence, owing mainly to the incomparable energy of Bourneville.

*German Translations of Lombroso's Works.*

The new work entitled "Political Criminals and Revolutions in their Relations to Anthropology, Law, and Politics," by C. Lombroso and R. Laschi, has not yet been translated into English. Inquirers who read German better than Italian can take advantage of the translation\* which has recently appeared. It has been executed by Dr. Hans Kurella, the editor of the "Centralblatt für Nervenheilkunde," and was published at Hamburg in two volumes octavo, with nine pages of engravings. I have not seen the Italian original, but Dr. Kurella's skill as a linguist is well-known, and the translation is clear and readable. This is a very learned and elaborate work, and it is specially interesting from the information it gives about the mental character of the revolu-

\* "Die Politische Verbrecher und die Revolutionen," &c., von C. Lombroso und R. Laschi, unter Mitwirkung der Verfasser, Deutsch herausgegeben, von Dr. H. Kurella. Hamburg, 1892.

tionary leaders of the present day. It contains the latest views of the well-known Italian professor, which are at present making no little stir in the world.

His other works, "*L'Uomo Delinquente*" and "*L'Uomo di Genio*," have also been translated into German.

## PART IV.—NOTES AND NEWS.

### MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

The Quarterly Meeting of the Medico-Psychological Association was held at Bethlem Hospital, London, on Thursday, May 19th, 1892, Dr. Whitcombe, President, in the chair.

The PRESIDENT announced that the annual meeting of the Society would be held on July 21st, at York.

The following candidates were unanimously elected:—

Percy Rutherford Adkins, M.B., B.S., Junior Assistant Medical Officer, Burntwood Asylum, Burntwood, near Lichfield.

Cecil F. Beadles, M.R.C.S., L.R.C.P., Assistant Medical Officer, Colney Hatch Asylum.

Matthew Cameron Blair, M.B., C.M.Glasgow, Second Assistant Medical Officer, Leavesden Asylum, near King's Langley, R.S.O., Herts.

Robert Henry Cole, L.R.C.P.Lond., M.R.C.S.Engl., Assistant Medical Officer, Moorcroft House, Hillingdon.

Alexander Charles Farquharson, M.D., M.C., D.P.H.Camb., Senior Assistant Medical Officer, Burntwood Asylum, Burntwood, near Lichfield.

William John Haslett, M.R.C.S., L.R.C.P., Resident Medical Superintendent, Hallford House, Sunbury-on-Thames.

Reginald Harry Noott, M.B., C.M.Edin., Senior Assistant Medical Officer, Broadmoor Criminal Lunatic Asylum, Crowthorne, Wokingham.

Frederick Edward Rainsford, M.B.Dublin, Second Assistant Medical Officer, City and County Lunatic Asylum, Fishponds, near Bristol.

Dr. CONOLLY NORMAN—As you are aware, sir, I have asked your permission, and that of the Council of the Association, to propose a resolution as a matter of urgency. A few months ago the Lord Lieutenant and the Privy Council of Ireland issued a new copy of rules and regulations for the management of District Lunatic Asylums in Ireland, which contained a provision, among others, slightly different from the former rules that had obtained in that country. This altered rule provided for the abolition of the office of consulting and visiting physician in the Irish District Asylums as vacancies should occur in that office. The Lord Lieutenant and Council have been approached by certain medical bodies in Ireland with a view of calling upon his Excellency to reconsider and rescind this altered rule. It would greatly contribute, I believe—and I think I am at one in this respect with the greater number of the members of the Association—to strengthen the hands of the Chief Secretary, if this Association were to adopt a resolution upon the subject. I therefore propose that the following resolution be adopted and forwarded by the Secretary to the Chief Secretary and the Lord Lieutenant of Ireland:—"With reference to the order in council issued by his Excellency the Lord Lieutenant, abolishing the office of visiting physician to District Asylums in Ireland as future vacancies shall occur, this Association desires to approach his Excellency with

an expression of their opinion in favour of the proposed change in the official work of asylum administration in Ireland. The Association believes that this change will be found to act with decided advantage to lunacy work generally in Ireland, as has been the case in other countries where the corresponding office has been abolished."

Dr. NICOLSON--I beg to second the motion. I am quite sure that the expression of opinion on the part of other superintendents connected with the Association would be unanimous in supporting our Irish brethren in their attempt to remove an office, which, however desirable, perhaps, in itself, becomes in conjunction with the work done by the medical superintendent to some extent an inconvenience, not to use a stronger term. I therefore think that we have ground before us to support the Irish branch of our Association and lunacy work in general by sending in such an expression of opinion on our behalf.

Dr. MERCIER—I should like to ask if any notice has been given of the resolution?

The CHAIRMAN—None. It has been allowed to be brought before the Council and recommended to this meeting as a matter of urgency.

Dr. MERCIER—It seems to me a matter of some seriousness to be brought forward without any notice at all. I think we ought to have time to make up our minds before sending in an official resolution in behalf of the Association. It may be a very admirable thing to do, but it is rather rushing the thing to ask us to do it without having time to consider the matter at all.

Dr. MURRAY LINDSAY—I think the matter is urgent and should be dealt with now. It is a question in which I have taken some interest for a good many years. I well remember that two years ago, on the occasion of the meeting of this Association, I argued this question, which was then raised by the College of Surgeons of Ireland. The same arguments were then brought forward as have been brought forward now, and I think they are unreasonable. They were chiefly two, first, that the visiting physicians were a link connecting the inner with the outer world, and then that they were a guarantee that everything would be properly done in the Irish asylums. Those arguments have been raised now. I have had the opportunity of carefully perusing the Privy Council rule, and also an important rule to which Dr. Conolly Norman has not alluded; it is virtually a substitution of the resident assistant medical officers for the office of visiting physician. To my mind, and I think in the opinion of the majority of the members of the Association, there can be no reasonable doubt that asylums and the inmates of asylums would derive far more benefit from an additional resident medical officer than they could possibly derive from a visiting physician, however eminent. It is true that these visiting physicians are generally leading practitioners in the town, but that is only a reason why they should have less time to devote to the work of the asylum. I think the matter is an urgent one. I have read the Irish papers, and there appears to be a storm coming on. Some decision will no doubt be come to by the Chief Secretary, I hope in the direction of adhering to his present rule. No doubt a resolution come to to-day by this Association would greatly strengthen his hands. I think we should never be doing better work than we shall be doing in supporting our Irish brethren in this matter. I have great pleasure in supporting the resolution, and I hope the Association will not be led away by any appeal for delay. I may mention, too, that I have had some experience of visiting physicians in Scotland. At the Royal Murray Asylum of Perth, in my time, I had charge for thirteen months in the absence of my brother. I visited the asylum daily, and I had the opportunity of seeing the practice of the visiting physician. He was a leading practitioner in the town and a very able and highly respected man. But it was an utter farce, and the medical business was reduced to nil. He could not be said to treat the patients. He was there and made himself very pleasant, but as for any



real medical treatment or assistance, I think such a thing hardly existed. The office in Scotland was abolished many years ago, and with great advantage to the institution.

The PRESIDENT—I feel sure that every gentleman who has followed the discussion which has taken place in Ireland on this matter will feel the fullest sympathy with the medical superintendents of Irish asylums. Personally, I have great pleasure in putting the resolution to you.

The resolution was unanimously adopted, and the Hon. Secretary was directed to forward a copy to his Excellency.

Dr. BEADLES read a paper on "Gall-stones in the Insane." (See Original Articles.)

The PRESIDENT—It is a little unusual for us to elect a gentleman as a member of the Association at one moment and to hear from him such an interesting paper at the next. I congratulate Dr. Beadles upon his paper. I am sure it augurs well for his future as regards the Association and the interest that he will take in it.

Dr. EDWIN GOODALL—I may mention that out of 1,400 post-mortems in the W. R. Asylum, there were 284 patients with gall-stones. Out of these 143 were men and 141 women; 49 cases occurred below the age of 40, and 149 above 50. Most patients were epileptics and demented, and that is in accordance with the view that sedentary life and farinaceous diet have to do with the production of gall-stones. I think nothing is more remarkable in the paper than the fact that practically we know very little as to the ætiology of gallstones, especially among the insane. As regards the association of cancer with gall-stones, in only two of these 284 cases was there any account of the cancerous growths, and in one of these it was doubtful whether the growths were cancerous. That fact is not in favour of the supposition that cancerous growths are disposed to by gall-stones. I think the fact that the pia mater and the other parts of the brain showed the changes that have been described is not of very great interest considering that so many of these patients were demented, and epileptics, and chronically insane, who would show such changes in any case. I feel much obliged to the author for his very interesting paper.

Dr. CONOLLY NORMAN—Though I have had inferior opportunities to those possessed by the reader of the paper, and the gentleman who has just spoken, for examining the bodies of the insane after death, I have been struck with the frequency with which I have found gall-stones, particularly in women. I am not prepared, however, to give the exact statistics. One is inclined, I think, rather to adopt the commonly received opinion that the prevalence of gall-stones in female lunatics is due to sedentary habits. There were a number of cases in which I found gall-stones where there had been no symptoms during life to suggest their presence. In one case the gall-bladder was packed with gall-stones, and biliari cirrhosis existed, which showed itself by jaundice before death. In two other cases there had been attacks of jaundice. In a third case an attack of acute jaundice came on for the first time and despatched the patient, and we found a gall-stone impacted in the common duct. My experience with reference to cancer slightly differs from that of Dr. Goodall. I had four cases of cancer of the liver in which there were gall-stones in the bladder. In one of these the cancer of liver was primary, and it had not attacked the gall-bladder. In another case the cancer was secondary. In two cases it existed in the gall-bladder. I found a large gall-stone not long ago in the bladder of a man who had died of a large endotheliomatous tumour of the lesser omentum with secondary infiltration of the liver. In this case the gall-bladder had been caught and squeezed between the superior surface of the tumour and the inferior surface of the liver, and it contained a large gall-stone. That, I think, rather suggests that in these cases of cancer of the liver and cancer of the gall-bladder, in which we find gall-stones in the gall-bladder, the cause is a mechanical one, and not occasioned by the irritation of cancer as some have held.

Dr. NICOLSON—There is one point that occurs to me with reference to the statement made by the author in quoting a medical writer, to the effect that most persons who died were found to have gall-stones. That is not my experience amongst convicts. My recollection is that a larger proportion of gall-stones were shown than one would find in ordinary life; but alongside that statement, it has to be borne in mind that persons dying suffer so long from disease of so many organs that the degeneration generally pervades their systems, and it would be less surprising on that account to find gall-stones present than it would be under ordinary circumstances. The prison diet is also somewhat less abundant in fats and oily substances than is the general diet outside. I think that any statement which gives prisoners a monopoly, as it were, of making gall-stones is altogether beyond any practical experience in this country.

Dr. SPENCE—I think the Association may congratulate itself on finding that the younger members are coming forward and reading such excellent papers. I am bound to say, however, that a good deal in the paper to which we have listened is ancient history to those who have had much to do with the insane for many years past. There is one practical point to which I may refer. I remember some fifteen or sixteen years ago taking as much interest as the reader of the paper has done in the subject of gall-stones. I made out that instead of the proportion, as in the case of those not insane, being two to three, it was something like ten to one. Of late years I think it has been considerably less. I wonder whether that is to be attributed to the fact that, thanks to the exertions of the Commissioners in Lunacy and the superintendents, female patients get a great deal more exercise than they did in olden days. Instead of seeing women cooped up in the wards day after day, simply turned out perhaps for an hour in the morning and in the afternoon, you now see troops of women walking out, and spending perhaps an hour and a half in strolling about the lanes, and having a great deal more exercise than formerly. I do not know whether we may attribute to that a fact that I have noticed at post-mortem examinations that the disproportion between males and females in whom we find gall-stones is not so great as it used to be some years ago.

Dr. MURRAY LINDSAY—I think there are two points that the theories advanced in Dr. Beadles' paper do not satisfactorily explain. Taking the results of post-mortem examinations, gall-stones certainly have diminished considerably of late years. It may be a question whether that is a mere accident. We certainly used to see a great number of gall-stones, but lately they are of uncommon occurrence. I know of no reason to account for it except the one advanced by Dr. Spence, which appears to be a probable one, that of late the patients get more exercise than formerly. With regard to the question of water, Dr. Beadles says that hard water predisposes to gall-stones. I can only say that our patients for 40 years have had to drink very hard water, double the hardness of the London and Surrey water, namely, 32°—the London and Surrey being 16°. They are now taking the same water, but they get more exercise, and the gall-stones are diminishing.

Dr. MACPHAIL exhibited, for Dr. N. A. Campbell, some specimens of biliary calculi, and read a communication from that gentleman.

Dr. SAVAGE read a paper on "Influenza and the Neuroses." (See Original Articles).

Dr. BAKER—Dr. Savage's paper is an extremely interesting one. I may mention that last year I had to pass through two attacks of influenza, and as Dr. Savage was reading his paper it appeared to me that he was describing my own condition during a great portion of the time. We had very few attacks in the asylum over which I preside, but several in my own house, and I only recovered from one attack very soon to have to pass into another. One gets into a condition of ill-health, being unable to take food, restless at night, and ultimately in a condition of complete exhaustion, followed naturally by a state

of profound despondency. You have the feeling that you can do no work, that you have no heart in it. In my own experience in the second attack, which was very severe, I found that nothing would do me any good except to flee from lunacy, and go to Switzerland.

Dr. GOODALL—I should like to ask Dr. Savage whether in his cases there was any history of alcoholism. Van Deventer lays stress on the fact that many of his patients had chronic alcoholism. With regard to the question of the increase of epileptic fits by influenza, in my experience there has been no difference in the quality or quantity of the fits as a result from an influenza attack. I note that Van Deventer and Erlenmeyer state that epilepsy and Jacksonian epilepsy had come on in influenza in persons who had been predisposed to epilepsy. With regard to the modification of existing psychosis, I have not seen any modification, and I have noticed that most German writers state that no modification has taken place. Some, however, state that an unfavourable effect has been produced, others say that an actual cure has occurred in such chronic and incurable maladies as paranoia. One interesting point is the fact that without much febrile disturbance, and with only a short duration of the malady, such a profound effect can be produced upon the nervous system. That remark, however, is by no means new. It was remarked long ago by Mendel that most of the disturbance must, in his opinion, be ascribed to a toxic influence. The evidence in favour of a toxic influence has very much increased of late, since the description of the influenza bacillus by Pfeiffer and others. I think that influenza differs from other maladies arising at convalescent periods in the fact that the preceding disease was not of long duration, and not attended by severe complication. From influenza, I think, we may pass on to the consideration of the mode of action of those inflammations and cellutic affections of a local kind, which are mainly supposed to exercise their influence locally. My own opinion is that the modification of existing mental disorders which such maladies often produce are due rather to the action of a circulating toxine than to a local irritation. Such a toxine would be produced in quantity by the pyogenic cocci present at the seat of inflammation.

Dr. CORNER—In the Bethlem Hospital there have been 35 cases in which I could trace influenza definitely as the cause—19 females and 16 males. There was neurotic inheritance in 21 cases out of the 35, including not only insanity, but epilepsy, hysteria, alcoholism, suicide, asthma, and diabetes. In 28 of the cases the attack of insanity was the first attack. Sixteen of the patients have already recovered, one was discharged relieved, and there are 15 under treatment, many of them being well on the road to recovery. Three died, one from syncope, one from pneumonia, and one from peritonitis. What struck me chiefly was the difficulty of diagnosing simple post-influenzal insanity from general paralysis of the insane. There have been 16 male cases of post-influenzal insanity in Bethlem. One was definitely a general paralytic; there were absolutely no symptoms before the influenza. He developed epileptiform seizures shortly after the influenza, and was admitted before diagnosis. It was uncertain whether he was a general paralytic at first, but he turned out to be a general paralytic of the slow variety, with general weak-mindedness. Of the other 15 cases nine were melancholiac and six maniacal. Of the 16 males one was a general paralytic, and seven of the other cases were admitted as general paralysis of the insane, but several have recovered. A good many were melancholic, and of course in such patients one does not expect to find many physical signs of general paralysis of the insane, but they have had various physical signs which suggested general paralysis of the insane. Tremors were the chief marked symptoms—tremors of the tongue, tremors of the face, tremulous and hesitating speech, tremors of the hands, exaggerated spinal reflexes which one would expect to find in all cases in which the brain was extremely exhausted, and so to a certain extent cut off from the spinal cord. In some cases we found unequal pupils, and in others there were seizures, some epileptiform, some



syncopal, and some mere lapses of consciousness. In one patient there was definite hemiplegia, apparently due to thrombosis. The great difficulty has been to diagnose between simple cases of insanity accompanied by post-influenzal neuroses and cases of general paralysis of the insane. With regard to mental cases coming on immediately after influenza, the greater portion were melancholic—in the proportion of 10 to 6. I certainly expected a greater proportion of maniacal cases, but it was not so. Of the seven cases looked upon as doubtful general paralytics, three have already been discharged well, and one is now at the Convalescent Home.

Dr. BLANDFORD—Influenza is a disorder which is attended by such a number of sequelæ attacking almost every part of the body that of course it is not extraordinary that among those sequelæ we should find insanity. Dr. Savage has so clearly spoken about the attacks of insanity following influenza that I do not propose to say much about it. We have all no doubt seen a good many people attacked by insanity after influenza. But there is an interesting point to which Dr. Baker has indirectly alluded, but about which much has not been said—that is, the immunity from influenza which the insane in our asylums seem to have experienced. During the first of the two epidemics I do not think I saw a single case of influenza among our patients, numbering 70 or 80. In the last epidemic, at the beginning of this year, we had perhaps half-a-dozen cases. The experience of most gentlemen to whom I have talked on this subject has been something of the same kind, namely, that there have been very few cases among patients in asylums, and that as a rule there have been many more cases among the attendants than among the patients. With regard to influenza modifying the course of insanity, I had one interesting case that I may mention, the case of a gentleman who was a general paralytic and had been under care for quite three years in his own house, being one of the quiet and demented kind of patients. At the beginning of the year he had a slight attack of influenza confining him to bed two or three days, with no great rise of temperature, and no very marked symptoms. When he got well of this attack of influenza and came downstairs again he had a most extraordinary lucid interval. He was in a state of dementia; his speech was so thick that you could hardly understand what he said. Yet in this advanced state of general paralysis, for three or four days he had a lucid interval, and his mind cleared up in a way which could hardly be believed. He inquired who were about him, asked his wife questions about affairs, and spoke plainly. He not only recovered his mental power, but to a great extent his power of speech. He gradually clouded over again and went back to precisely the same condition that he was in before the attack. It is an interesting case of a lucid interval occurring at such a late period of general paralysis. I do not think I ever before knew it happen after so long a time. I may mention that we have among us a member of the American Association of Psychological Physicians, Dr. Walter Channing. I am sure we shall be glad to hear what his experience is on the other side of the water.

Dr. WALTER CHANNING—I did not come prepared to say anything in this discussion, but I am glad to have the opportunity of adding a word to what has been already said. Dr. Savage has given a very lucid account of what he has found in connection with influenza. Our experience in America is that the number of cases of insanity that can be traced to influenza (or the grippe, as we have the bad taste to call it) is rather small. Some of you may remember a paper which was read about two years ago, after our first epidemic, upon cases occurring at Denver's Asylum, where the average number of patients is about 800, the admissions being between 400 and 500 a year. Of the total admissions during the months that the epidemic prevailed there were only 30 in which there was influenza, and of these there were only six in which influenza could be fairly called the cause. The nature of the last epidemic has been rather different. There was more febrile disturbance, a greater rise of temperature, and there were more general physical symptoms in the first epidemic than in



the second. In the second there were more nervous symptoms. Of course it is as yet rather early to give any percentages of cases which have followed that epidemic, but the total number of cases of which I have had any knowledge during the last epidemic among the insane where influenza has been a factor in the causation has been comparatively small. The second epidemic has not been so widespread as the first, but one's attention has been specially directed to it as an indirect factor in the causation of insanity. When a patient is admitted to an asylum the question is always asked, "Has he had the grippe?" and it is surprising to discover that in quite a large percentage of cases the person has had the grippe, has had it during the epidemic, has got over the direct attack, but never again recovered his ordinary health. How much the grippe has had to do with it is not easy to determine, the causation being more or less a matter of difficulty in the majority of cases. In some way apparently the patient's health was undermined, so that the ordinary exciting causes had more influence than they would have had if the patient had not had influenza. The effect has been an indirect one, but taking the total number of cases due to influenza I should say that it was smaller than you have experienced here. I am surprised to hear from Dr. Savage that so many cases do directly follow influenza. Apparently the number admitted to this hospital is comparatively small—35 cases—I do not know out of how many admissions, or during how long a period.

Dr. THOMPSON—In support of the last speaker I should like to ask if we are right in attributing so much to influenza as Dr. Savage would have us do. He says he has seen a large number of cases of insanity directly attributable to influenza. I think we must really be careful before we attribute an attack of insanity to any particular cause. I remember a discussion in this room two or three years ago on this subject, when reference was made to the singular headings of the Commissioners of statistics, and it was shown how absurd the great majority of those supposed causes of insanity were. Take even the puerperal state and intemperance. When you come to consider the great prevalence of these conditions, and how small a number of cases of insanity do actually arise from them, it ought to show us that we should be careful in assigning a particular cause, and confusing post hoc with propter hoc. I do not think the statistics of the Commissioners will bear out the assertion that after the first epidemic there was a great increase in the number of patients admitted to asylums. I am sorry that I have not actually examined them, but if that fact had been published since the first epidemic I think we should have heard of it. I am inclined, therefore, to protest against the ready acceptance of influenza as the cause of so many supposed cases of insanity.

Dr. E. WHITE—May I ask if it is possible to adjourn this discussion until the next meeting, because there must be many gentlemen present who are prepared with statistics and able to discuss this matter more fully.

The PRESIDENT—The next quarterly meeting will not take place until November.

Dr. WHITE—That will give all the more time for the collection of statistics, and it will give time for the development of nervous symptoms.

Dr. THOMPSON—There is one practical point on which I should like to ask a question—what is the average period Dr. Savage has allowed to elapse between an attack of influenza and the supposed resulting attack of insanity, that is, what limit of time does he put upon the period when he reckons influenza as the causation?

The PRESIDENT—There is no proposition before the meeting.

Dr. WHITE—I will move that the discussion of this interesting paper be adjourned until the next meeting.

Dr. ROGERS—I beg to second the motion, and I would suggest that it be at the annual meeting instead of the quarterly.

Dr. WHITE—We could not have a more interesting subject.

The PRESIDENT—We have a Presidential Address at the annual meeting, and we shall have to bow to the President as regards the subjects which there may be time to bring forward after his address. I entirely agree that a discussion of this kind should be continued. I think that the discussion of papers at our meetings is of the utmost importance. I do not think that we have allowed a sufficient time for the full discussion of papers so as to get the benefit that we might derive from them. Indeed, I have long felt if we had two days at our annual meeting instead of one it would not be too much to take in our scientific work. At this meeting we have only from half-past four to six o'clock for the reading and discussion of two very interesting papers, either of which might take up the whole time. I agree, therefore, with the proposal that has been made, but I think it is doubtful if we can take the discussion at the annual meeting, when we have to discuss the President's Address. If it is your pleasure, gentlemen, the paper can be put down for the annual meeting, and if it should turn out that there is no time, it can then be postponed until the following November. In the meantime we shall have the benefit of reading Dr. Savage's paper in the Journal.

The motion was unanimously adopted.

The PRESIDENT—This will be the last quarterly meeting held here, at any rate under my Presidency, and I wish before we part to propose that a hearty vote of thanks be given to the Governors at Bethlem Hospital for their kindness in allowing us the use of this room for our meetings. I have long felt strongly that we should have a local habitat of our own, but until we do it is our bounden duty to acknowledge the very great courtesy and kindness shown us in this hospital. At the same time I cannot help feeling that to Dr. Percy Smith himself we are under a very great obligation, inasmuch as at every quarterly meeting we turn him out of his sitting-room and use it as a business-room. I do not think we ought to be in such a position, but while we are the least we can do is to return our hearty thanks to the Governors and to Dr. Percy Smith.

The proposal was unanimously adopted.

Dr. SMITH—I thank you for your kind remarks, and I would only say that I shall be sorry if the Medico-Psychological Association meets anywhere else permanently.

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#### CELEBRATION OF THE CENTENARY OF THE YORK RETREAT.

We are mainly indebted to the *Yorkshire Herald* for the following notice of this Celebration, which took place at the above Institution, May 6th, 1892.

The establishment of the York Retreat is so identified with the commencement of the movement which brought about so beneficent a revolution in the treatment of the insane that its Centennial Celebration claims an amount of attention which is not limited either to those immediately interested in the Institution or to members of the Society of Friends, with which it is particularly associated. That the event was regarded with some such feeling was evidenced by the extent of the celebrative gathering which took place at the Retreat last night, and a peculiar interest was imparted to it by the presence of descendants of the Founder of the Institution, and of men and women whose names are revered for their unselfish devotion to its interests, as also by the presentation of several mementoes.

Under the presidency of Mr. James Hack Tuke (Hitchin), at one time the Treasurer of the Retreat, a conference commencing at 5.30 was held in the recreation-room of the asylum, a photographic picture of the company grouped near the front entrance of the main building having been first secured.

The CHAIRMAN said they must all feel that their meeting that day to

celebrate the 100th anniversary of the founding of the Retreat in 1792 was an occasion of no common or merely local interest, inasmuch as it not only celebrated the founding of the institution, but commemorated the initiation of a movement for the humane treatment and care of the insane which had profoundly benefited that most afflicted and helpless portion of the human race throughout the world, many of whom had hitherto been consigned to "mad houses" where the accepted "treatment" consisted chiefly in imprisonment and chains in filthy cells and other barbarities. If the Founder of the Retreat and his friends could be aware of the marvellously beneficial change which had taken place in the past hundred years, would they not join with them in profound thankfulness to the Giver of all good that so great a result had attended their belief in and steadfast following of the Divine law of love and kindness? It was a pleasant thought to him that William, Henry, and Samuel Tuke, representing three generations of his family, were permitted to work together in a cause so dear to each. He believed he owed the distinction of presiding on this occasion to the fact that he was the oldest living descendant of William Tuke, bearing his name, and the only member of his family who could remember to have seen the Founder of the Retreat. Although in the lapse of time the fact had necessarily grown dim, yet he did just remember going when a little over three years of age to take leave of his great grandfather and receive his dying blessing in 1822. It had always been with sincere pleasure that he had witnessed the various important improvements which had from time to time taken place in the Retreat during the last forty years. None of these had seemed to him of greater importance than the extension of the villa system in addition to the old institutional style of building, a system which he hoped would develop still further in the numerous asylums in this country, in which so many huge and unhomelike structures were to be found. The Chairman then called upon Mrs. Pumphrey, the daughter of a former Superintendent of the Retreat (Mr. Thomas Allis) to read a paper entitled "Recollections of the Retreat as it was Fifty Years Ago."

The paper, not intended for publication, contained a number of incidents and references to former patients, many of them of a droll character.

The CHAIRMAN announced the presentation to the Retreat of a number of portraits of those who had been connected with the Institution and had passed away, including several superintendents. The pastels were by H. S. Tuke.

Dr. ROBERT BAKER, the present Medical Superintendent of the Institution, then read a paper on the "Ministry of the Society of Friends to the Insane," in the course of which he said it was good for all of them, whether as communities or individuals, to pause periodically amid the hurry and worry of life's fitful fever and to attempt to climb to some relatively high mountain apart and survey the landmarks of the memorable past. Dr. Baker observed it was nearly a hundred years ago\* that there came into the heart of the great alienist-physician Pinel the belief that the insane could be safely, satisfactorily, and humanely cared for without the use of chains. It was one of the most interesting chapters in the history of the treatment of the insane to read how bravely and courageously Pinel acted out his convictions in performing the dangerous duties he undertook. Dr. Baker proceeded to point out that it was a hundred years ago that a similar conviction was reached at York, and it was resolved to introduce a humane system of treatment of the insane. Hence the Retreat, wherein commenced what was long since described as "a government of humanity and consummate skill." Dr. Clouston,

\* Pinel's nephew, Casimir Pinel, discovered in the registers of Bicêtre that the exact date of his noble inspiration was 1793. "On doit croire que ce fut vers les derniers mois de 1793, et non de 1792, que Pinel se presenta à l'hôtel de ville pour demander l'autorisation à la Commune de faire enlever les chaînes aux aliénés de Bicêtre."—"Lettres de Pinel," 1859. M. Semelaigne, the great grand-nephew of Pinel, gives the date of his nomination to Bicêtre as August 25, and the day of entering upon his duties there as Sept. 11th, 1793.—"Philippe Pinel et son œuvre," 1888. Then followed the like humane deed at Salpêtrière.



when, as President of the Medico-Psychological Association, he spoke at York in 1889, described the system of treatment adopted at the Retreat as "the keynote, the example to every succeeding hospital in the country. There was no doubt," he adds, "that York was the very Mecca of the mental physician." Probably most of them were aware that in England there were three distinct classes of asylums: 1st, the vast county asylums; 2nd, private asylums; 3rd, eighteen hospitals for the care and treatment of the insane. The York Retreat belonged to this latter class, where all the funds derived from the patients who paid were spent on the patients who could not afford to pay. No doubt many of them were deeply attached to the name of the Retreat, but it was good for them to remember that the Retreat was actually and legally a registered hospital for the medical treatment of persons in mental ill-health; and it was good for all of them to think of that famous institution not so much as an asylum as a hospital for the cure of those many forms of brain disease which collectively were designated insanity. The great lesson that their ancestors taught in entering on their ministry to the insane was that they ought to regard the insane as human beings in affliction, needing not irons and strait-jackets, but kindness, gentleness, patience, and forbearance. Not only did they recognize the fact that insanity was only a form of ill-health, and not a Satanic possession, but that each special case needed to be ministered to according to its own special needs. (Hear, hear.) They would agree that in their recent developments at the Retreat, the Society of Friends had acted wisely and humanely in building several villas in their grounds and in obtaining Belle Vue House, and Gainsboro' House Convalescent Home at Scarborough. (Applause.) By means of these villas a higher and healthier classification of their patients was possible, inevitable annoyances of asylum life were minimised, and the prospects of cure considerably promoted. If they visited those villas they would see that they were made gay with plants and flowers, and that home comforts abounded. Asylum surroundings were conspicuous by their absence. There was yet another ministry to the insane, which the Society of Friends had partially adopted at the Retreat, but which they should at no distant date carry out to a much larger degree than had as yet been attained to, and that was the employment of a gradually increasing number of ladies and gentlemen to tend and to associate with the Retreat patients, so that they might be ministered to by someone specially called to his or her high vocation, and endowed with as many as possible of the attributes of the ministering angels of God. In conclusion, Dr. Baker spoke of his impending retirement, after rather more than twenty consecutive years' residence among the insane, and said that he believed that to be called to minister to the insane was to be called to the highest of all ministries but one.

Mr. J. S. ROWNTREE hoped the result of their meeting together would be to excite renewed interest in the Retreat. He believed that the Retreat, in common with other institutions of the Society of Friends, had suffered some loss of interest from the origination of those great movements which had called their sympathies out of the narrower channel in which they had hitherto flowed into the wider and more national ones. He thought there was great force in the remarks of Dr. Baker respecting the employment and special training of young people for association with the insane.

After an interval for refreshments,

Mr. WILLIAM PUMPHREY submitted a paper, entitled, "The Retreat Hospital for the Insane Viewed as a Social and Financial Factor," in the course of which he sketched the various changes which had taken place in the constitution of the Retreat, detailed its mode of working, and gave statistics of its financial position. The original amount of the donations was £30,000. The society had benefited in consequence of the low rate of charges to poorer members to the extent of £65,000, and the property of the institution was now valued at £52,000.



Dr. D. HACK TUKE then read a paper, entitled, "A Retrospective Glance at the Early History of the Retreat, its Objects and Influence" (see Original Articles).

Dr. BAKER moved a vote of thanks to Mr. Tuke for his kindness in presiding. Mr. FRYER seconded, and Mr. JOSEPH ROWNTREE supported the resolution.

The CHAIRMAN having responded, the proceedings became of a conversational character, and shortly afterwards terminated.

### AFTER-CARE ASSOCIATION.

A special meeting of the Association for the After-Care of Poor and Friendless Female Convalescents on leaving Asylums for the Insane was held at the Colney Hatch Asylum, by kind permission of the Visiting Committee, on June 1st, 1892, and proved a successful occasion.

Dr. HACK TUKE took the Chair, and observed that it is thirteen years ago, on the 5th of this month, since the first meeting was held at the house of Dr. Bucknill to consider whether an Association should be formed, having for its object the "*After-Care*" of *Poor and Friendless Female Convalescents on leaving Asylums for the Insane*. A paper was read in its support by the Chaplain to the Colney Hatch Asylum, Mr. Hawkins, and the decision was arrived at that such an Association should be immediately formed. Those who wish to understand the motives that led to this step being taken—one that everyone could foresee would involve a large amount of time and thought—cannot do better than read Mr. Hawkins' paper. The following passage may be quoted now. "Those whose need is sorest are patients—young and middle-aged women, without relatives or friends; wives deserted by their husbands, widows, single persons in various callings, as governesses, sempstresses, shopwomen, domestic servants, employés of different kinds, who, after treatment in asylums, having sufficiently recovered to justify their discharge, have no relatives or friends to receive them, no home to return to, no situation or employment awaiting them in which they can earn their bread." "Those who are familiar with the inmates of public asylums will probably be able to call to mind cases of female convalescents whose actual dismissal, though warranted by the state of their health, is delayed—postponed from month to month because they have no friend who can or will undertake their charge on their first return to the world. Some may be literally friendless, others are estranged from their parents, or so remote from them as to be beyond reach of their assistance. The friends of others are sometimes so poorly lodged as to be unable to receive, even for a limited period, an additional inmate into their rooms. In some cases, it is to be feared, relatives would be better pleased that the convalescent should find in the asylum a *permanent* abode, than that she should leave it and so possibly become more or less burthensome to themselves" ("Jour. Ment. Sci.," Oct., 1879). Now it is important to recognize the fact that the real proposer of this Association (Mr. Hawkins) and those who took the initiative in forming it were or have been intimately associated with public asylums, and in recommending that an After-Care Association should be formed, were practically acquainted with the needs of patients discharged therefrom. It is clear, therefore, that if this Association fails for want of material, it has either been ill-advised and misled by the very men who ought to know most about the subject, or we fail to reach the class we wish to benefit as much as we should do. Dr. Bucknill, Dr. Lockhart Robertson, Dr. Claye Shaw, and Dr. Savage were not likely to advise the step which we then took without knowing and feeling from practical experience that there was a real need for this Association, on pecuniary and moral grounds, which it was decided to attempt to supply. We also know that Lord Shaftesbury wrote

"*the subject has long been on my mind,*" and he would not have so written had not a number of cases come to his knowledge which stood in need of kindly care and help during the interval between leaving the gates of the asylum and entering once more upon the duties and avocations of life. Further, I would point out that since the establishment of this Society not a few medical men continually engaged in public asylum life have urged the importance of supporting the objects which it has in view. Why I thus refer to the history of the Association is to show that it was *founded by practical men*, and was the *outcome of a practical want*. It is well to revive this fact from time to time, as we wish to do to-day, and there is an obvious appropriateness in our meeting at *this* asylum, seeing that it was from it that the proposal to found this Association really emanated. In view of these facts it has all along been evident to me that the superintendents of county asylums and the guardians of the poor must place themselves in close relationship with the "After-Care Association," and be good enough to take some little trouble in supplying us with the necessary information in regard to the nature and character of cases likely to be benefited by having help extended to them by the funds and the cottage homes which this Association supplies. Without this it is obvious that the wants of convalescent patients will not be brought to our knowledge, and the Association may languish, not for lack of funds, but for *want of material being brought within their reach*. This would be a lamentable result, and another event would be equally deplorable, the application of needy cases suitable for care and help, but relapsing into mental derangement for want of the interest of the public, from whom we must derive the sinews of war. The object of such a meeting as this is, therefore, *twofold*, having reference to both *demand and supply*, and it is to be hoped that these objects will be advanced by our meeting here to-day.

The Secretary, Mr. H. THORNHILL ROXBY, gave a statement of cases relieved, especially from the Colney Hatch Asylum, which showed that a large amount of good had been effected since the Association was established.

It was proposed by Dr. RAYNER, "That this meeting, approving the objects and work of the After-Care Association, engages, as far as practicable, to promote them." Dr. Rayner said that they had heard from their Chairman the history and objects of the Association, and their Secretary had given interesting examples of the work done by it. They could have no doubt, therefore, of the necessity for such an Association or of the ample scope for its operations. Dr. Tuke had quoted that from one asylum the estimate was given that nearly one-fifth of the females discharged recovered were suitable objects for such assistance. Now there were discharged recovered last year from the English Pauper Asylums 3,000 women. A fifth of them would give a total of 600 needing help. From this, however, considerable deductions had to be made. In the more rural parts of the country the proportion would probably be much less. The difficulty of the Association at the present time was to get into communication with these discharged patients, and to this end it was necessary to obtain the sympathy and co-operation of those who had the care and treatment of them, it being almost impossible to appeal directly to the sufferers for obvious reasons. It was, therefore, necessary to keep the medical officers and committees of asylums and guardians of the poor interested in the Association, and informed of its increasing ability and experience in rendering assistance. This was a very important part of the work of the Association, but, besides this, it was necessary to obtain the aid of ladies in various parts of the country, who would recommend suitable cottage homes for the boarding-out of cases, and take a share in the supervision and finding suitable employment or situations for them. And, lastly, but not least, help was needed in increasing the funds of the Association.

Mr. J. PEEKE RICHARDS, late Medical Superintendent of the Female Department of Hanwell Asylum, said he felt some little diffidence in seconding the resolution proposed, from the fact that for some years after the Association was

formed he had not been a member or given it his support, as he had experienced but little difficulty in providing for the friendless female patients who were discharged convalescent from the Hanwell Asylum. Of late he had altered his views, and he believed that the Association would meet a great want, more especially in providing suitable homes for those convalescent patients belonging to the middle classes, who from misfortune were not able to be placed in private asylums, but had to be classed as paupers in the county institutions. These were the people who required help, and he could not help expressing the opinion that at the present time, when so much was being done for the working classes by the legislature, etc., that they were able to look after themselves, but that the reduced middle classes were those that required more especially our sympathy and support. He suggested to the ladies present at the meeting that they should each try a discharged convalescent patient as a domestic servant in their own households—not as was so frequently, he feared, done—those who professed themselves interested in the after-care of these friendless convalescents asked some friend to take them, but would not venture on the trial themselves. Mrs. Richards had herself taken a patient into her household and with marked success. He cordially seconded the resolution, which was carried unanimously.

Dr. SEWARD, in proposing the next resolution, expressed the hope that a local branch of the After-Care Association might be able to do much good, not only by contributing to the funds, but especially by helping to find openings for convalescents, which would enable them to return to a life of usefulness. Having under his care in the Colney Hatch Asylum more than 1,300 female patients, he had been much impressed by the necessity which exists for such an organization as this Association, and by the excellent work it is already doing in a quiet and unostentatious way. From the four asylums of the London County alone, about 400 women are discharged every year. It may be safely estimated, at least, that about one-tenth of these are friendless, and must return to the workhouse, unless the Association steps in to give them a fresh start in life. If to this class there be added an equal number, whose friends are too poor to do much for them, and who greatly need further assistance, it will be seen that the work of the Association is not likely to languish for want of suitable cases from the London district alone. Dr. Seward said that while well aware of the multifarious duties of the Medical Superintendents of County Asylums, he did not regard it as a hardship to fill up the necessary forms required by the Association in regard to patients leaving asylums and requiring pecuniary or other aid. He bore testimony to the benefit which the Association had conferred upon patients leaving the asylum of which he was the superintendent. He concluded by moving, "That the formation of local branches of this Association would greatly assist its work, and that a Colney Hatch branch be organized."

The Rev. F. HALL warmly supported the resolution, which was carried.

It was proposed by the Honorary Secretary, the Rev. H. HAWKINS, and seconded by Mr. PAWLE, formerly one of the Visiting Justices to the Cane Hill Asylum, and carried by acclamation, "That the kindness shown by ladies here and elsewhere towards many of the infirm in mind merits grateful recognition." The proposer of this resolution enumerated the various ways in which ladies had shown their kindness towards the infirm in mind, viz.: As lady visitors to patients during many years; the ladies' local "Dorcas Society," to make clothes for some discharged female patients; the lady correspondents, from various localities, with patients; ladies attending the London monthly meeting; and lastly, lady visitors to Cottage Homes.

Dr. EDGAR SHEPPARD had great pleasure in proposing a vote of thanks to the asylum's sub-committee for permission to hold the meeting in the asylum, and to Dr. Hack Tuke for presiding on so interesting an occasion. He said he felt a real pleasure in doing this because he had so often returned thanks in that room for kindnesses received during the many years of his superintendent-

ship of the asylum, and because the Chairman, by his antecedents and his practical knowledge of insane life, was so admirably suited to preside over the meeting and support the Association of which the Rev. H. Hawkins was the founder and the mainspring. Dr. Sheppard was free to confess that he had not at first been very sanguine as to the success of the "After-Care." But he ought not to have had any doubts upon the matter, as the earnest Christian zeal and potential energy of Mr. Hawkins were a guarantee for the growth and progress of everything to which he put his hand.

Dr. SAVAGE seconded. Carried by acclamation.

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### ANNUAL MEETING OF THE AFTER-CARE ASSOCIATION

The Annual Meeting of this Association was held at Hampstead, at the house of Dr. Rayner, who occupied the chair, June 20th. Amongst those present were the Hon. Dudley Fortescue, Rev. W. St. Hill Bourne, Rev. Henry Hawkins, F. C. Pawle, J.P., Drs. E. Parker Young, S. Rees Philipps, J. Peeke Richards, Hack Tuke, Fletcher Beach, Norman Kerr, Savage, etc., etc.

The Report stated that 73 cases had been before the Committee during the year. Some had been boarded-out in Cottage Homes, grants of money and clothing had been given, and assistance had been rendered by finding suitable occupations. The number of Members and the subscriptions and donations had increased. Through the kindness of Dr. Heurtley Sankey, £20 was obtained from the profits of Sale of Work at Littlemore. Will not other Superintendents follow Dr. Sankey's example? For furnishing and fitting up a proposed Cottage Home contributions had been received to the amount of £46. The Report stated that the success and utility of the Association depended upon the warm co-operation of the Medical Superintendents of Asylums throughout England.

A number of addresses were delivered in support of the Association, and it was decided to form a branch for Hampstead and district.

[In consequence of the date of the Meeting falling so late in the quarter we are unable to give a fuller report of the proceedings.]

The Meeting terminated with a vote of thanks to the Earl of Meath, the President, for allowing the Council to hold their meetings at his house, and to Dr. and Mrs. Rayner for welcoming the Members and friends of the Association at Hampstead for their Annual Meeting.

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### SUPREME COURT OF JUDICATURE.—COURT OF APPEAL.

(*Before the MASTER of the ROLLS, LORD JUSTICE LINDLEY and LORD JUSTICE KAY*).

HANBURY V. HANBURY.

This was an application on behalf of the husband for judgment or a new trial in a petition by the wife for a dissolution of marriage upon the ground of the adultery and cruelty of her husband. The acts of cruelty alleged were committed in 1883 and 1884, and the acts of adultery charged against him were alleged to have been committed with Fanny Young, in October, 1886, and with Alice Pullman and Emily Ireland in June, 1890. The respondent denied the acts of cruelty and adultery, and he further pleaded that when he committed the acts complained of he was a lunatic and of unsound mind and incapable of understanding the character and consequences of such acts. He further



pleaded that all the acts of cruelty and some of the acts of adultery were condoned by reason of the execution by the wife of certain deeds dated August 5, 1885, and March 29, 1888. The action was tried before the President (Sir Charles Butt) and a special jury in March last, when the trial lasted five days, and a great deal of medical evidence was given as to the state of the respondent's mind. The medical evidence was to the effect that the respondent was suffering from a disease which deprived him, as long as the attacks lasted, of all control over his actions and drove him to drink and other excess. The jury, in answer to questions put to them by the President, found that the respondent committed the acts of cruelty and adultery charged against him in the petition, and that when he committed the acts of cruelty and adultery he was capable of understanding their nature and consequence. The learned President held as a matter of law that the execution of the deeds did not amount to condonation of the acts of cruelty, and pronounced a decree *nisi* for dissolution of the marriage.

Mr. Lockwood, Q.C., and Mr. Bayford, Q.C. (Mr. Witt, Q.C., and Mr. A. D. Home with them), contended (1) that the verdict was against the weight of the evidence; and (2) that the respondent was entitled to judgment upon the ground that the evidence showed conclusively that the respondent, when committing the acts charged against him, was under an uncontrollable influence and was not responsible for his acts. The parties were married in 1875 and there had been six children of the marriage. In March, 1883, one daughter died, and it was suggested that the loss of this child developed the disease from which the respondent subsequently suffered. In July, 1883, the respondent, when under the influence of drink, struck the petitioner, and he was then bound over by the magistrate to keep the peace. He then voluntarily went to Dr. Stewart's Home for Inebriates. In January, 1884, he returned to his business, and in June, 1884, he had a further attack of insanity. The form of insanity was known as "folie circulaire" or recurrent mania, due to hereditary causes. The disease recurred at intervals, and when it did he broke out into drinking habits and other habits of excess, being driven to it by an uncontrollable impulse. The form of the attack was as follows:—First exaltation, then delusions, followed by drinking, and then depression. Between the attacks he was perfectly sane. The medical evidence showed that the drinking was the result of the mental disorder. In June, 1884, he threw some brandy and water in his wife's face, and on June 23 he was placed at Moorcroft Lunatic Asylum, kept by Dr. Stilwell. On June 26 the wife filed a petition for judicial separation, and in August the respondent left Moorcroft in improved health. Negotiations took place between the solicitors to both parties, with the result that on August 5, 1885, the petition was by consent withdrawn, and two deeds were executed under which the respondent agreed to allow his wife £500 a year, and to settle £8,000 for the maintenance of herself and children. There was no agreement for separation. The parties lived together again from November, 1885, to July, 1886, when he was again attacked with the disease, and he was removed to Moorcroft Asylum, where he remained until September. In October 1886, he committed adultery with Young, at Peckham, and in November, 1886, the wife filed a second petition for judicial separation, and also petitioned for an inquiry in lunacy. On March 29, 1888, this petition for judicial separation was withdrawn by consent, and a deed was executed giving the wife £300 a year additional, and giving the husband the custody of two of the children. This was not a separation deed, but the parties did not live together after July, 1886. In December, 1888, the respondent was removed to Wanford House Asylum, near Exeter, and from there he was transferred to a lunatic asylum at Virginia Water, and then to Moorcroft Asylum until May 23, 1889, when he was discharged. In September, 1889, the respondent became ill again, and, under the advice of Dr. Davy, of Exeter, he placed himself under the charge of Dr. Powne, of Chard, and he remained at Dr. Powne's house (not an asylum) until 1890, and in April, 1890, while he was there

he had an attack. In June, 1890, he went to Exeter, and the acts of adultery with Pullman and Ireland were committed at Exeter and Exmouth in that month. The evidence of the medical witnesses of special experience in mental disease showed that this disease, when an attack came on, drove the respondent to drink and to other excess. The medical evidence was all one way. [Lord Justice Kay: But when the respondent went to Exeter from Dr. Powne's he had made no attack upon him, or else Dr. Powne would not have let him go. Can you show any attack which in its inception was not accompanied by drinking?] The evidence of Dr. Davy showed this. This disease was not produced by drinking; the disease produced a craving for drink. [The Master of the Rolls: But is the jury bound to accept the opinions of the medical men? It is not like a question of fact; it is a question of opinion. One knows that some doctors say that everyone is mad. Moreover, the evidence does not show that the respondent did not know what he was doing.] The evidence showed that when the attacks came on the impulse to excess was uncontrollable. [The Master of the Rolls: But is that sufficient in law?] Yes; if the respondent had no will in the matter, he would not be responsible for his actions. They also contended that the deeds of August 5, 1885, constituted a release as regards the acts of cruelty.

Mr. Inderwick, Q.C., and Mr. Bargrave Deane, for the petitioner, were not called upon.

The Court dismissed the application.

The Master of the Rolls said that, with regard to the alleged release, there was nothing in the deeds which amounted to such a condonation as constituted a release. There was condonation of the acts of cruelty and adultery by the subsequent cohabitation of the parties, but the acts of adultery subsequent to the cohabitation revived the acts of cruelty and adultery committed before the cohabitation. The question, then, was whether the acts of cruelty and adultery were acts for which the husband was responsible. It was admitted that the acts charged were committed, but it was said that the husband was not responsible by reason of the condition of his mind at the time when the acts were committed. Medical men of great eminence stated that his mind was a diseased mind when the acts were committed. They called it an insane mind. They designated the disease of the mind as "*folie circulaire*," and the principal medical witness stated that the disease could not have originated in the man, but must have been hereditary, caused by a degeneration of mind in one of his ancestors, and that the disease lay dormant until he was exposed to excitement such as drinking, and that then the disease developed itself. The evidence stated that in the first two stages of the disease the victim would have an uncontrollable impulse to indulge to excess, which, as far as he could see, consisted in committing adultery as often as possible and ill-treating his wife. In his opinion, that was evidence which the jury were entitled to disregard altogether, even though it was not contradicted. It was a piece of scientific evidence, and the jury, upon such a matter, were the sole and ultimate judges; and, however scientific and however influentially supported the evidence was, the jury would have a right to reject it altogether. One question was whether, supposing there was such a disease, this man was a victim to it. The doctors said that it must be hereditary, through one of his ancestors having a degenerated mind, and that it could not be brought on by any amount of drinking. There was not the slightest evidence given of a degenerated mind in any of the respondent's ancestors. The jury might well find that this man did not suffer from this supposed disease. The case, however, did not shape itself thus. The jury found that the respondent knew what he was doing when he committed the acts, and understood their nature and consequences. The rule of conduct of this Court was that a new trial would not be granted upon the ground that the verdict was against the weight of the evidence unless the verdict was such that a jury, viewing the whole of the evidence reasonably, could not reasonably find.

The jury were perfectly entitled to come to the conclusion they did, and he thought that it was the only sensible conclusion at which they could have arrived. There remained a question of law. Assuming a diseased mind, and that the diseased mind gave him certain impulses—he would not call it an uncontrollable impulse, as he did not know what that meant in such a case as this—the respondent knew what he was doing, and that he was doing wrong. An act of adultery was a culpable act against the wife. He was prepared to lay down as the law of England that whenever a person did an act which was either a criminal or a culpable act, which act, if done by a person with a perfect mind, would make him civilly or criminally responsible to the law, if the disease in the mind of the person doing the act was not so great as to make him unable to understand the nature and consequences of the act which he was doing, that was an act for which he would be civilly or criminally responsible to the law. Consequently, even though the respondent's mind was diseased, he was as responsible to the law as if his mind was not diseased. The judgment of the learned President was therefore right. There was a larger question which the President touched upon, but did not decide—namely, whether, even if the respondent's mind had been such that he did not know the nature of what he was doing or that he was doing wrong, the petitioner would or would not be entitled to a divorce. It was unnecessary to decide that question, and he desired to leave it open.

Lord Justice Lindley concurred. It was very curious that, until the death of his daughter in 1883, no trace of insanity was discovered in the respondent. He then took to drinking. Giving every weight to the medical evidence, it did not come to more than this, that the respondent suffered at the time he committed the acts from acute mania, and could not control his actions. Whilst in this state, whether caused by drink or not, he committed adultery and beat his wife. Was the wife to be deprived of the protection of the law? He did not think so. It was a mistake to introduce questions of criminal law into these questions. The case seemed as plain a case as could possibly be for a divorce.

Lord Justice Kay concurred, saying that he had nothing to add.

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#### DEWAR v. DEWAR.

The appointment of a *curator bonis* to manage the estate of a person of unsound mind is an ancient and valued prerogative of the Supreme Court of Scotland. It is a speedy and economical procedure compared with inquisition in England, which resembles the still more ancient and formidable process of *cognition*, a trial before a jury.

The appointment of a *curator bonis* is made by summary petition before a Lord Ordinary of the Court of Session. The petition is accompanied by two medical certificates, setting forth on soul and conscience that the person is incapable, and the appointment lasts until recalled upon petition or annulled by death. A recent statute has further reduced the cost of this procedure by making it competent for the Sheriff to appoint a curator to a person of limited means.

In the case of *Dewar v. Dewar*, the petition was at the instance of a wife for the appointment of a *curator bonis* to her husband, at the time confined in an asylum under warrant of the Sheriff. It was proved by medical certificates that he had a clear and intelligent comprehension of business matters, and in particular of his own financial affairs, but that he suffered from delusions with regard to spiritualism, and entertained groundless feelings of mistrust regarding members of his own family, which might affect the propriety of his directions respecting the management of his own property.



The facts of this case are concisely summarized in the opinion of the Lord Ordinary (Kincairney), subjoined —

“ From the petition and answers it appears that Dr. Dewar had been, on the instructions of the petitioner's agents, visited by Dr. Grainger Stewart and Dr. Heron Watson ; by Dr. George W. Balfour, by Dr. Littlejohn, by Dr. Clouston, and Dr. Byrom Bramwell.

“ The certificates of these gentlemen disclose some difference of opinion about Dr. Dewar's mental condition. Dr. Grainger Stewart and Dr. Heron Watson state that they felt it impossible, at the date of their examination on 20th May, to grant a certificate for the appointment of a *curator bonis*. They recommended delay and a further examination after the lapse of a month or six weeks for the purpose of deciding upon the necessity of appointing a curator.

“ Drs. Balfour and Littlejohn express the opinion in general but unqualified terms that Dr. Dewar was of unsound mind, and incapable of managing or of giving directions for the management of his affairs.

“ Drs. Clouston and Bramwell state that on their visit they found Dr. Dewar coherent and acute in regard to business matters, but taking into account the whole of the facts elicited at a prolonged examination of his mental condition, they felt unable to give a certificate that he was yet fit to manage his affairs or give directions for their management.

“ I rather understand that the course of making a remit to the Sheriff suggested by the respondent's counsel has not of late years been regarded very favourably, and I consider that I had hardly a right to devolve on the Sheriff a duty which appeared to be my own, and ultimately I came to think that the safest step I could take was to make a remit to a medical gentleman who had not been employed by either party, and whose opinion I could regard as of weight and authority.

“ Having ascertained that Sir Arthur Mitchell had not been consulted in the case in such a way as to affect his absolute neutrality, I, on 9th July, remitted to him to examine the petition and answers and productions, and thereafter to visit Dr. Dewar, and to report whether in his opinion Dr. Dewar was in such a state of mental derangement as to render him incapable of managing or of giving directions for the management of his affairs. Sir Arthur Mitchell has now returned a report, stating his opinion ‘ without hesitation or difficulty ’ that Dr. Dewar is at present of unsound mind, and as a consequence incapable of managing or of giving directions for the management of his affairs.

“ Sir Arthur Mitchell's report is expressed in general terms, but he was good enough to call on me and to explain his views in more detail. It appears that Dr. Dewar is, in Sir Arthur's opinion, subject to delusions related to what is known as spiritualism, of such a nature as to render him quite an unsafe guardian of his own property, and which might render him liable to be very readily imposed on by designing people who were aware of his weakness. He entertains, besides, Sir Arthur informs me, feelings of mistrust towards his family which cannot be altogether disregarded.

“ The agents of Mrs. Dewar and for Dr. Dewar have been again heard, and it has been strongly pressed, on behalf of Dr. Dewar, that he showed an intelligent comprehension of his own affairs—which seems to be true—and that he could safely be trusted with them, and in particular, that he could not, or ought not, to be deprived of the control of his own property without the verdict of a jury obtained on a brief from Chancery, under the provisions of the 101st section of the Court of Session Act.

“ I think that my duty is to appoint a *curator bonis*. My appointment is, of necessity, substantially, though not nominally, an interim one, if it shall hereafter appear to the Court that the condition of Dr. Dewar's mind should be submitted to the consideration of a jury. It rather appears to me, however, to be better for Dr. Dewar that a *curator bonis* should be appointed than that his present state of mind should be submitted to a jury. For should he shortly recover—and I have not heard anything which precludes that hope—it will be



much easier to restore to him the full control of his affairs than it would be if he were found by a jury to be insane."

In anticipation of the discussion upon the reclaiming-note, two additional medical opinions were obtained at the instance of the respondent's agents.

The first of these was given jointly by Drs. Howden and Ferguson upon 23rd October, and *inter alia* contained the following passage:—"We found him calm and self-possessed in manner, of a high degree of intelligence, with a mind widely and accurately informed, and able to reason on many subjects in a clear and rational manner. He appeared thoroughly familiar with the condition of his financial affairs, and alive to his interest in regard to them." And the conclusions of these gentlemen upon the question of the respondent's mental condition are summarized thus:—"We are of opinion (first) that Dr. Dewar is a person of unsound mind; (second) that if at large, Dr. Dewar might be dangerous to the persons who are the object of his suspicions, and that the nature of his delusions unfits him to treat with fairness the members of his own family and household, and renders him liable to be biassed in a similar manner against others; (third) that, nevertheless, he is capable of clearly appreciating his worldly interests in many ways; (fourth) that if management of his affairs includes a just and natural regard to the interests of his family, we do not consider he is worthy of being entrusted with their management; but (fifth) that we are not prepared to say that his mental condition, as ascertained by us, incapacitates him from administering his affairs in other respects."

The second opinion was that of Dr. Yellowlees, who, while saying that he found Dr. Dewar "acute and intelligent in conversation," concluded as follows:—"I believe that Dr. Dewar is conversant with his business affairs and investments, and that he could give directions concerning them, but such directions would be influenced or swayed or determined by the presence of delusions as to relatives or others conspiring against him, or desiring to injure him, and might be influenced by insane ideas as to spiritualism and its devotees, supposing Dr. Dewar to entertain such delusions and ideas."

Argued for reclamer—(1) To deprive the respondent of the management of his property it was not enough that medical certificates should be produced in evidence of mental incapacity; he was entitled to retain the management until found incapable by verdict of a jury upon a brief of cognition issuing from Chancery in terms of section 101 of Court of Session Act, 1868. (2) In this case the evidence did not warrant the appointment. The fact that a person was of unsound mind was not enough, for the particular unsoundness may not interfere with an intelligent view of business matters.

Argued for the petitioner—No case quoted showed that a curator had been refused by the Court when the person of unsound mind was actually resident in an asylum. It would be competent enough for his relatives to sue out a brief of cognition from Chancery under sec. 101 of the Act, but that process the relatives did not desire to adopt. The inquiry before a jury would give both to his relatives and to the respondent much pain, and would probably injuriously affect the latter and delay his recovery, while if he did recover he would again require to have his sanity tried in a declarator of reconvalence.

At advising—

Lord President—I do not think it is disputed as a general principle of our law that a man of full age is not to be deprived of the management of his own affairs except by the verdict of a jury finding him incapable of managing them. There has, however, been a practice in observance from very early times of appointing factors or *curators bonis* to persons in an infirm state of mental health where it appeared, or was thought probable, that the infirmity was of a temporary character. I do not say that the statutes, and particularly the last statute, regulating the procedure in cases of cognition of the insane (*viz.*, the Court of Session Act, 1868, sec. 101) positively confine the issuing of a brief from Chancery to the case of a person in permanently bad mental health; but I do say, generally speaking, that that is the kind of case which is with

propriety submitted to a jury. Where, on the other hand, there is a case of merely temporary incapacity, the appointment of a *curator bonis* is the more expedient and proper remedy, and if there is any doubt as to whether the incapacity is permanent or temporary, I still think the appointment of a *curator bonis* is the more judicious procedure for the parties interested and for the Court to adopt. The jurisdiction of the Court in appointing such officers existed and was exercised long before the year 1730, but the words of the Act of Sederunt of that year are important as showing the class of cases to which it was intended to apply. It defines the class whose estates factors were appointed to administer as "pupils not having tutors, and persons absent that have not sufficiently empowered persons to act for them, or who are under some incapacity for the time to manage their own estates," and the object of the appointment was "to the end that the estates of such pupils or persons may not suffer in the meantime, but be preserved for their behoof and of all having interest therein." Now, it is to be observed that the Pupils Protection Act of 1849 recites in the preamble the identical words, showing obviously that the intention of the Legislature was to continue the special remedy provided by the Act of Sederunt, and to confine it to the case of pupils or absent persons, or of persons suffering "for the time" from incapacity. It therefore appears to me that the question is whether this ought to be dealt with as a case of permanent or of temporary insanity, and that question depends upon the special circumstances we have before us here. If it was clear from the papers in the case that this gentleman's condition of incapacity was hopeless, I should be of opinion that the proper course would be to sue out a breve of cognition from Chancery. But these are not the facts of the present case, for although Dr. Dewar appears to labour under delusions of a singular and complicated character which render it very unsafe at present to entrust him with the management of his own affairs, he still retains a considerable amount of mental energy and acumen, and I do not see anything in the medical reports to discourage the hope that his mental capacity may be completely restored. His residence in the asylum has already wrought an improvement in his condition, and that being so it would be a strong proceeding upon the part of his relatives, to whom alone it is competent to sue out a breve from Chancery, to apply for a breve with the object of having him cognosed insane and permanently deprived of the administration of his affairs, unless he should be reinstated by a formal declarator of reconvalescence. Everything points to this case as one for the application of a temporary remedy, and the only temporary remedy known to our law is the one asked for in this petition. As to the expression of Dr. Dewar's own opinion in this matter, I confess I do not attach much importance to that. Neither he himself nor his legal advisers thought fit to set forth in the answers to the petition a demand that the question of his mental capacity should be submitted to the judgment of a jury, but on second thoughts Dr. Dewar writes to his agents in these terms:—"Having to-day seen a copy of Sir A. Mitchell's report, I still maintain that I am perfectly competent to manage my own affairs, and I wish you to insist on the question of my capacity being tried by a jury. I cannot consent to the appointment of a *curator bonis*; still, if one must be appointed, I wish Mr. William Mitchell, S.S.C., to be appointed;" and Dr. Dewar's agents, in terms of this letter, lodged a minute in process asking that the present petition should be superseded by an inquiry upon a breve of cognition. Now, if this suggestion had come from anybody else, I would have said it was the suggestion of an enemy, for I cannot conceive anything more likely to retard his recovery than his being exposed to a trial before a jury upon a breve. If there is one course indeed more than another which would be likely to render him permanently mad, it is the course suggested in that letter and minute. I see no reason to doubt that in the first place the respondent's condition is such as to render him unfit in the meantime to manage his own affairs; and in the second place, as it is quite possible, if not indeed probable, that he may at some time so far recover as to be restored to the uncontrolled

management of his estate, I think the Lord Ordinary has taken the proper course in appointing a *curator bonis*.

Lord Adam—I agree, and have very little to add. I am of opinion with your Lordship that the proceeding by way of appointment of a *curator bonis* upon the estate of a person of unsound mind is independent of the ordinary process of cognition upon a brief from Chancery, and is further the more suitable procedure to adopt where the unsoundness of mind is not likely to be enduring, which is the case here. That is my view upon the competency of this petition, and the only remaining question is as to the expediency of the appointment in this instance. The main matter for consideration is, what is the course most conducive to the benefit of the respondent himself? Now, his case is peculiar in this respect, that he is now in a lunatic asylum, and is admittedly of unsound mind. He does not himself say in the answers that he is of sound mind, but that he is not of unsound mind to the extent of being unfit to manage his own business affairs. But upon the evidence before us in the form of medical certificates—and some of these were obtained at his own instance—it is clear that his mental unsoundness goes further, and is not of the partial character contended for by the respondent's counsel. [*After referring to the contents of the medical reports in detail in support of this view, his Lordship proceeded*].—The question before us is whether it is right and proper that a person so described should have the management of his affairs in his own hands, and to that question I say no.

Lord M'Laren—The case has not been argued so much upon the power and jurisdiction of the Court to make the appointment which is here resisted as upon the expediency of the appointment being made, and whether the matter of the respondent's mental incapacity should not upon his demand be submitted to the verdict of a jury. That is undoubtedly the appropriate mode of trying the question where it is raised on a brief of cognition proceeding from Chancery, but I should be sorry to give countenance to the supposition that a brief of cognition is the only method by which such a question can be raised and settled. Alongside of that method there have for centuries subsisted other modes of ensuring protection of the property of the insane. Your Lordship has traced the history of one mode by means of the appointment of factors and *curators bonis*, and there was also another method which consisted in the appointment under the powers exercised by the Court of Session of tutors-dative to insane persons; and although there are not many applications nowadays for this latter appointment—owing probably to the fact that the office is a gratuitous one—still in both these cases the means of inquiry adopted was the same, and we have proceeded upon the reports of professional persons obtained by the parties themselves, or upon the initiative of the Court for its own guidance. I am far from saying there are not cases where a mere formal proof should be exacted—it might be, for instance, that an absolute contradiction in point of fact was disclosed in the petition and answers—but we have no such issue in the present case. Here the question raised is merely whether the cerebral disease and mental unsoundness admittedly existing are of so serious a character as to necessitate a temporary withdrawal of the respondent's affairs from his own management. I apprehend this is a matter entirely within our discretion, and while thinking that the right and suitable course of inquiry has been adopted by the Lord Ordinary, I also agree in the propriety of his judgment.

Lord Kinnear concurred.

The Court confirmed the appointment.

On appeal to the House of Lords, at delivering judgment, Lord Herschell said:—It appears to me that, so far as authority goes, there is no authority for the proposition that in every case the Court is bound to make a judicial inquiry, or to remit the case to the Sheriff in order that he may do so. And it seems to me that there is authority for the course being taken which was taken in the present case, for in *Forsyth v. Forsyth*, 24 D. 1435, the Court made a remit to two men of skill in order to have the advantage of their opinion upon the subject. In the present



case a remit was made by the Lord Ordinary to Sir Arthur Mitchell, a man, as I have said, highly competent to fulfil such a function, and the Court had the advantage of his report before arriving at any conclusion. Therefore, my Lords, there appears to me to be no authority justifying the assertion that the Court can only act by taking proof itself or having proof taken before the Sheriff. There is authority for the proposition that the Court may act, and has been in the habit of acting, upon a remit to a medical man, or medical men of skill, to assist it in forming its conclusion. But all these authorities together leave, without any doubt, the impression upon my mind that in every one of these cases it is for the Court to form its own conclusion, and it is for the Court to determine in its discretion what assistance it will obtain towards forming that conclusion. That assistance has been of a different character in different cases, but whatever its character has been, whether in the way of proof before the Sheriff or not, it appears to me only to have been such assistance as the Court thought right to acquire in order to enable it to come to a conclusion as to how the discretion reposed in it ought to be exercised. My Lords, if that be so, I think it disposes of the whole of the contentions which have been put before your Lordships on behalf of the appellant, and it shows the course taken in this case to have been correct. I therefore move your Lordships to affirm this judgment, and to dismiss the appeal.

Lord Watson—My Lords, I cannot say that I have anything to add to the statement of this case which has been made by my noble and learned friend. To anyone conversant with the law and practice of Scotland, this must, in my opinion, appear to be a most groundless appeal. I think there can be no doubt whatever, in the first place, that the Court of Session had jurisdiction to entertain the application made to it in its present form; in the second place, that, notwithstanding the appearance of the present appellant to oppose its prayer being granted, it was a matter entirely within the discretion of the Court to determine what inquiry was necessary for the purpose of enlightening them as to the capacity or incapacity of the appellant to manage his own affairs at the time; and, in the third place, I think it equally clear that the certificates of the medical men which were produced were quite sufficient to justify the Court in taking the course which they did take, and making the appointment without further inquiry.

Lord Morris concurred.

Their Lordships affirmed the judgment appealed from, and dismissed the appeal.—*The Scottish Law Reporter*, June 25, 1891.

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#### MISS CONSTANCE NADEN'S ESSAYS: A REJOINDER.

In the "Journal of Mental Science" for April there appears a review of the late Miss Constance Naden's essays, under the heading "A New Philosophy." It must be a pleasure to those in any way identified with Miss Naden's thought-system thus to find it ably and courteously discussed in so prominent a quarter. I have shown my own appreciation of the notice in question by reprinting it—with annotations by Dr. Lewins—in the appendix to a recently published essay of my own on Miss Naden's auto-monism ("Sadducee versus Pharisee," Bickers). It is chiefly, however, as editor of the latest volume of her essays ("Further Reliques of Constance Naden," Bickers), reviewed in the "Journal of Mental Science," that I am interested in the matter. In that capacity, a very large amount of her posthumous papers passed through my hands for arrangement and selection. I can thus, without pretension, affirm myself to have had, at least, the opportunity of becoming as fully acquainted with Miss Naden's views as any other person, and it is because I do not think that the late notice



in these pages adequately treats the subject that I pen this rejoinder. Of course I do not claim authoritatively to interpret Miss Naden and her "Weltanschauung," but where there may be any difference of opinion between her reviewer and myself her own words may be referred to as being, at least, in court. As a philosophical and scientific writer, she has been largely misinterpreted and misunderstood, probably because the time has not yet come for her report being believed; but her most careless critic would scarcely accuse her of using misleading or inaccurate language. Her statement, even in matters of trivial detail, was always measured and deliberate, and her posthumous papers, on account of her painstaking method, required very little revision before being sent to press.

(1.) Had Miss Naden lived to see her essays published in volume form I think she would have been the first to question the propriety of their being reviewed under the title "*A New Philosophy*." And this for the simple reason that it is *not* new, or even, in the modified sense, novel—this hylo-idealism, to the exposition and elaboration of which she devoted the best years of her brief life. A glance at almost any of her essays will show that she always regarded the most advanced generalization of modern thought as having its seed-time, if not its roots, in the past—*only its readjustment to date* being, in any sense, "new."\* In her case, the up-to-date scientific training through which she passed enabled her to put in a fresh light the familiar dictum of Protagoras. No one more distinctly deprecates the viewing of hylo-idealism as a "discovery," or as anything more than a *resipiscentia*—a coming again to our better self—than Dr. Lewins (*Cf.* his pamphlet "Auto-centricism," W. Stewart and Co., pp. 1, 13), to whom Miss Naden was so much indebted for the germ of the thought-theory which she elaborated.

(2.) It is stated by the reviewer that "her main interest . . . was in the discovery and working-out of a philosophical scheme of the world of knowledge which should combine for her mind the merits of the English and the Neo-Kantian systems of thought, and avoid the difficulties of both." Now, as to "discovery" enough has been said, and scarcely anything could be more unfortunate than the phrase "a philosophical scheme of the world of knowledge" as applied to Miss Naden's world-scheme, seeing that her method is scientific as well, and includes, in identity, the world of being as well as the world of knowing. And then, of course, we have the apparently inevitable statement repeated, "It is evident that she was much influenced at one time by Mr. Herbert Spencer." I have dealt with this elsewhere (*Cf.* "Reliques," Appx. 233, note; "Sadducee *versus* Pharisee," pp. 12, 13). The persistence, however, of this idea without any foundation is truly astonishing.

(3.) "The essence of the theory (hylo-idealism) appears to be capable of being stated as an inverted variant of the teaching of Berkeley and Hume." Thus far the reviewer. The contention may be granted as regards Berkeley; indeed, I admitted as much in my reply to Dr. Dale's article in the "Contemporary Review" (*Cf.* "Reliques," Appx. p. 238). But I cannot see where Hume comes in—at least, distinctively. Hume, indeed, doubted "whether there were any reality corresponding to these 'fictions of the mind' at all." But that was not the distinguishing characteristic of his system. On the other hand, it is the veriest commonplace of philosophical record that, as the external world practically disappeared with Berkeley, so the permanent conscious subject disappeared with Hume. Now, what would "an inverted variant" of the latter position be? Simply the reinstatement of a permanent conscious subject. But that would, in no sense, apply to Miss Naden's position. The true "inversion" of Hume is Neo-Kantianism, not of the English, but of the French school.

\* As Dr. Lewins puts it in a letter just received: "In every age, every problem must receive a new rendering, so as to bring it into harmony with the ever-varying *Zeitgeist*."

(4.) But since we cannot agree as to what Miss Naden's system resembles, let us see what it is—or rather, in the present instance, what it *is not*—in and by itself. "Miss Naden," says the reviewer, "is possessed by two currents of thoughts, which she conceives her theory to reconcile. She is very clear that to us there is no outside world—that every 'thing' is a 'think' . . . and that, in fact, each man makes his own universe." But she is, at the "same time, equally assured of the effective materiality of the universe." So far well. But the following is immediately slipped in, as if on precisely the same level as the foregoing: "She is quite satisfied of the existence of other things (*sic*) and other beings, and she is prepared to reason about them, not only for intellectual, but for ethical purposes." Now, is this line of criticism a fair one? I am tolerably well acquainted with Miss Naden's writings, published and unpublished, and I would respectfully ask for substantiation of the statement implicitly conveyed by the above method of quotation, viz., that as regards (1) thing being think, (2) the effective materiality of the universe, and (3) the existence of "other things" and other beings, Miss Naden was *coincidentally* persuaded, *i.e.*, regarded them as assurances on one and the same primary level? If not substantiated, of course the criticism falls. It is mainly a question of "object" and "eject," as Clifford put it, and Miss Naden was "parlously" exact in her terminology, as many of her critics have found to their cost.

(5.) Again, "Miss Naden's answer to the difficulty seems to be a rough-and-ready sort of Cartesian argument." In what succeeds, I am unable to follow the reasoning. In fact, in regard to it, I am somewhat of the opinion of Dr. Martineau when he said of a certain controversialist that he impressed his readers more with the stateliness of his march than with any clear idea of the direction in which he intended to travel. Miss Naden's argument is represented by sundry disconnected quotations from her writings. The first is taken from her essay "Ontology and Scepticism." The second is from another part of her writings altogether. And so on. Now, why not have followed up the first extract, with its natural and logical sequel, in the essay which immediately follows it, *i.e.*, "Cosmic Identity?" Isolated quotations are apt to be misleading, and a mosaic of them is intolerable. And, then, by way of conclusion, the patchwork is called a "simple-minded argument." How would Kant read if his "Critique of the Pure Reason" were not only interleaved, but interlined, with his "Critique of the Practical Reason?" Yet this would scarcely be less edifying than an *olla podrida* of hylo-zoism and hylo-idealism. The latter, indeed, lies implicit in the former, but they are not the same.

(6.) It seems, however, according to the "Journal of Mental Science" reviewer, that "the test and basis of the whole matter is, what test of *reality* one's scheme of philosophy can provide." The "test" is the "test," without doubt—except, perhaps, when it does duty as "basis." But let that pass. The answer to the above very much depends upon what the "philosophy" in question is. If it be a monism—a synthesis universal—then a "test" is unthinkable. Miss Naden has the following in her essay "Cosmic Identity:"—

"The term 'identity' when applied to the cosmos has precisely the same signification as when applied to any separate object. It means *constancy of relations*. There is only one distinction to be drawn. The relations of a separate object may be classed as internal and external. . . . Cosmic relations are all internal, for the cosmos has no outside. . . . We cannot draw any comparison between this world and other worlds, for there is no other universe by which our own can be tested." Constancy of relations, then, must be internal, not external, in the case of the cosmos. But a "test of reality" which is internal, inside the cosmos, can only test that which is left when it (the test) is subtracted. Hence, possibly, the conclusions of the reviewer: "That our universe is made up of phenomena all thinking persons will agree. That, in some sense, it is nevertheless real, is obvious to all who are not in a lunatic asylum, and to many who are. But the explanation of the meaning of that

reality is the crux of the philosopher, as the discernment of it is often the test of the lunatic."

It would seem, then, that if a world-scheme is monistic it can have no *locus* at all from the reviewer's standpoint, since there is no foothold left for a test of its reality. All that can be said to this is—What "test" would there be, in turn, of the reality of any such "test," to say nothing of its "meaning?" What of the regress of tests thus imperative? Broadly, however, such a method as that of the "Journal of Mental Science" has its advantages. Find a "basis" for your philosophy and it contrives a double debt to pay—a basis at one time, it comes in handy as a court of appeal at another.

(7.) Then as to reality apart from "tests." This is the *fons et origo mali*, i.e., of the whole of the bad reasoning. "Drunken dreams," "mirages," etc., according to the reviewer, are not "real." And we "know" nothing, apparently, regarding dream-content. But some realists—out of an asylum—are of a contrary opinion, so are some apparently sane idealists, who affirm, undeterred by dread of incarceration, that "the real is *everything*." But surely, unless the critic can show that such dreams and spectra are outside the egoistic circle, his contention cannot affect Miss Naden's auto-centricism. A chronometer registering correct time is a chronometer, but registering incorrectly is not a chronometer at all. Is that how his argument would run? But the registration is "the thing"—its correctness or incorrectness a secondary matter; and this whether the fact be "obvious" or otherwise to sane or insane. Unreality in certain relations is reality in others. Absolute unreality is not even the black spot on the bean. Everything has its place. We may place wrongly, but the round peg in the square hole is not an unreality. Daltonism is not blindness. Were all affected by it, the "colour" would just be *as it is seen* and not otherwise. Scientists begin to admit nowadays that the sentient eye is "the only colour-box."

(8.) With the estimate of Miss Naden, which concludes the notice, it is more difficult to deal, inasmuch as it is mainly negative. "She was a strong and interesting personality, and her essays contain many fresh and vigorous things which will repay perusal." But this, it seems, is because "they (the essays) are not all concerned with the explanation of the fundamental notions of her system." Lastly, "all her arguments are, on the whole, less interesting than herself." Such a verdict is regrettable, if only on the ground that it shows how completely the reviewer has missed her philosophic and scientific standpoint. Eliminate *it*, and the late verdict of a certain provincial newspaper editor might not unreasonably be applied to her literary achievements in prose: "Respectable school-girl essays." And, as I have elsewhere remarked, although her career was brilliant and fascinating, it lacks aim and purpose, and is, to a great extent, unintelligible, unless life-theory be brought forward to explain it. And this has never been done except in the case of the hylo-idealism which she was persuaded of and embraced. The time will come—if it be not already at the doors—when those who now reject it will find, as she found, in this her "rational ideal," the same "sense of new joy, new strength, and new life."

GEORGE M. MCCRIE.

# MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

## THE ANNUAL MEETING.

The fifty-first Annual Meeting of the Association will be held on Thursday, July 21st, 1892, at The Retreat, York, in honour of the Centenary of the Foundation of this Institution, under the presidency of

ROBERT BAKER, M.D.

Council meet at 9.15 a.m.,

General Meeting at 11 a.m.

Afternoon Meeting (President's Address) at 3 p.m.

Dr. YELLOWLEES will propose a Resolution expressing the Association's appreciation of the great blessing conferred on the Insane through the foundation of the York Retreat a hundred years ago.

Luncheon provided by the Retreat Committee, at the Retreat, at 1.30 p.m.

Dinner will take place at the York Station Hotel, 7.30 p.m.

Friday, 22nd.—Train will start from York at 10.15 a.m. for Helmsley, where luncheon will be provided at the Black Swan Hotel.

Brakes will take Members to Rievaulx Abbey.

FLETCHER BEACH,

Hon. Sec.

Darenth Asylum,

June 21, 1892.

## INSANITY, ETC., IN THE NEW HEBRIDES

Dr. William Gunn, Medical Missionary, Fortuna, New Hebrides, in a letter about the Arithmetical Faculty in the Polynesians, which is reserved for later publication, makes the following observations:—"Insanity is pretty common amongst the natives. Some become insane for a little time and then recover. Sometimes they have fits of something like madness, which lasts only a night. It is an interesting fact that there is only one case among the natives of Areitzum, so far as I have been able to learn, since the Island became Christian, whereas before there were many cases. There are no idiots in Fortuna, but there are one or two who, though one could scarcely call them imbeciles, are rather inferior in intelligence to their neighbours. There are none in Arima or Areitzum. I have a photo of an idiot in Quongoa, who, although he has not a bad face, is rather idiot-looking. There are several cases of sexual malformation in Fortuna. One of these is usually called a woman, but has the body of a man, the face resembling something of both sexes. There is no beard. I have never examined the case. From accounts by the natives themselves this seems to be as near an approach to the fabulous hermaphrodite as there is in the human race." Dr. Gunn knows of two similar cases, which, however, are not so marked.



## Correspondence.

CONSTANCE NADEN AND HYLO-IDEALISM (AUTO-COSMISM).—  
 "PERCEPTION AND CONCEPTION.—APPERCEPTION."

To the Editors of "THE JOURNAL OF MENTAL SCIENCE."

GENTLEMEN,—Permit me, as Miss C. Naden's literary executor, to contribute a brief minute on your able and weighty review of her system of thought. At page 275 of "The Journal of Mental Science" for April last, your reviewer terms Miss Naden's variant of Berkeley's "Principles of Human Knowledge" a new philosophy. In one sense it is such, as based entirely on positive science, a consummation impracticable until our present *fin de siècle* epoch. But, in a stricter sense, as a metaphysical or mystical speculation this form of materialism is as old as philosophy itself, and in antiquity has for its most prominent advocate the abderite sophist Protagoras. And, indeed, according to his latest biographer, Sir A. Grant, the stagyrite himself. In a word, it is only Berkeley reversed—reduced, that is to say, as indeed your critic well observes—from absolute to phenomenal idealism, substituting this matter as mother of all "things" for the Bishop's transcendentalism. It posits, *as a quite obvious truism*, the fact that outside the individual (solipsismal) consciousness there cannot, in a relational sphere, be any knowledge whatsoever—a postulate which arraigns much of Professor Huxley's arguments in *animal automatism*, as also the term agnostic, of which he is the coiner—a term which, as connoting *nescience*, has no scientific value at all, as not merely unscientific, but *anti-scientific*, leaving room, as it does, for Mr. H. Spencer's most unsatisfactory theory of the *unknowable*. Your candid critic carps at Miss Naden's "delightful dogmatism." But as founded on exact science, which is nothing unless positive or dogmatic, her position is justifiable and unassailable. To deal in hypotheses would be, for her, to desert the high vantage ground of the certainty implicit in all scientific syntheses. In their field the "glorious uncertainties" of metaphysic or other speculation have no place whatever. I speak above of the Protagorean formula—"man the measure of all things"—a predicate quite misunderstood by Plato, as also by "god-like Verulam," where he blames men for spinning webs, like spiders, out of their own entrails, as if it were not a case of Hobson's choice. But this ideal, or at least its germ, is really pre-historic, implicit as it is in the ephemerism of Brahman esoterism, in which Brahm, in Miss Naden's view represented by the self or ego, is described as "looking round and seeing nothing but himself," Brahm being confessedly only the higher self. Just as in the case of Sir C. Wren in St. Paul's. Indeed, as soon as we assume, as we must do on the plane of contemporary science and evolution, that thought (cerebration) is an organic function, and life the sum total of these functions or organization in action, the question falls as between hylo or relative and absolute idealism. For no one out of a lunatic asylum, and not many within it, will venture to contend that natural offices can ever be vicariously performed. Otherness therefore drops, and egoism (auto-monism) seems to be the open sesame of the immemorial problem. An exoteric creation, such as the Mosaic, though in principle sanctioned by Mr. Darwin on data quite inconsistent with Darwinism in "Origin of Species," must be quite foreclosed. Kant's negation of "Ding an Sich," a high-water mark from which he receded in all his works after the first edition of his "all-shattering" "Critique of Pure Reason," must be upheld. Miss Naden's view is also foreshadowed by Sir Humphry Davy in his ejaculations regarding the universe during the ecstasy induced by inhalation of nitrous oxide gas. The artificial manufacture of urea, out of inorganic compounds, by Wöhler, more than sixty years ago, satisfactorily proves the solidarity of the inorganic and organic realms. And the morphological arrangement of the cones and rods of the retina, directed, as they are, *backwards*

towards the *fundus* of the eye, seems clearly to show that light, itself invisible, but the revealer of all "things" else, is no outside factor, no "offspring of heaven's first-born, or of the eternal co-eternal beam," as the pre- and anti-scientific Milton states it, but solely the product of the optic nerve and brain, so that, as Miss Naden affirms, each man or sentient being generally is still more the maker of his own world than of his own fortunes. And this view will be found to be the most sublime and poetical, as well as the simplest and most obvious one, in accordance with the proverb, "Fact is ever grander than Fiction." Lord Byron sees this point when he writes —

"What a sublime discovery 'tis to make  
The universe universal egotism."

And the mystic and far-seeing Coleridge sums up the dialectical quasi-solution admirably in the lines —

"We receive but what we give,  
And in our life alone does nature live;  
Ours is her wedding garment, ours her shroud."

I am, gentlemen,

Yours truly,

R. LEWINS, M.D.

### Obituary.

#### PLINY EARLE, M.D.

This well-known American physician, the Nestor of psychological medicine in his country, died full of years and honour on the 17th May, 1892, at the Northampton State Hospital for the Insane, Mass., of which institution he was the second superintendent, having been appointed a few years after it was opened. "He gave it character," says the *Springfield Daily News*, "and raised it to the first rank in its class for the treatment of that endlessly varied disease, insanity, and also in the secondary matter of financial management. These were the results of a singularly broad and open mind, guided by a noble and earnest nature, and characterized by a constant and ardent devotion to scientific truth, for which he ceased not to seek through experience, being ready at any time to abandon what, in the light of greater knowledge, had grown untenable."

He was descended from Ralph Earle, one of the petitioners to King Charles II. for permission to form Rhode Island into a corporate colony. He was born December 31st, 1809, at Leicester, R.I., and educated at the academy there, and subsequently at the Providence Seminary of the Society of Friends, of which body he was a member till his decease. He graduated in the Penn. University in 1837, and visited during several years the hospitals and asylums in Europe. He was appointed, in 1840, resident physician to the Frankford Asylum, near Philadelphia, where he introduced the practice of giving lectures on natural philosophy. He was elected, 1844, medical superintendent of the Bloomingdale Asylum, N.Y., where he resided five years. He again went abroad and visited asylums for the insane. He became visiting physician to the New York City Asylum, 1853. He delivered in this year a course of lectures on insanity at the College of Physicians and Surgeons. For some years he engaged in practice as a physician, and was appointed professor of psychology in the Berkshire Medical Institute at Pittsfield. It is stated that this professorship was the first of the kind in a medical college in the United States. In 1864 he became the superintendent of the Northampton Hospital, where he lived to his death, although he resigned his office in the institution in 1885. A marked feature of his management there was the institution of lectures and social gatherings every week. "He was the first man who ever addressed a gathering of the insane on

any other than a religious discourse, and the only one who ever gave a course of lectures on insanity to his patients, and, to the surprise of specialists, these lectures were much appreciated by his audience of about 300 insane people."

It was a source of constant gratification to him that he was one of the thirteen original members of the Association of Medical Superintendents of Hospitals for the Insane, founded in 1844. He is the last of that historic group of earnest mental physicians. He was president of this Association in the years 1884 and 1885. He was the first president of the New England Psychological Society.

Dr. Earle wrote a considerable number of essays and books. Among these are "A Visit to Thirteen Asylums for the Insane in Europe," 1841; "History, Description, and Statistics of Bloomingdale Asylum," 1848; "Blood-letting in Mental Disorders," 1854; "Institutions of the Insane in Prussia, Austria, and Germany," 1854; "Psychological Medicine: Its importance as a part of the Medical Curriculum," 1867; "The Curability of Insanity," 1877; also "A Glance at Insanity and the Management of the Insane in the American States," 1879.

The funeral took place at the Northampton Asylum. Among those present were Prof. Hitchcock (of Amherst), Drs. Scrivener, Page, Stearns, and Mr. F. B. Sanborn (of Concord). The Rev. R. A. Griffin, of the Unitarian Church, took a leading part in the service. He was buried in the Bridge Street Cemetery.

Dr. Earle, as is well known, attracted great attention at one time to the question of the degree to which the insane recover, and caused much surprise, not unaccompanied by incredulity, by demonstrating from statistics that the percentage of recoveries was smaller than supposed, and the proportion of relapses greater. He was foremost in exploding the constant and seductive fallacy of confounding persons with cases, and unfortunately not a few remain unable to understand or appreciate the distinction between the two. He revelled in figures, whether scientific or financial, and, in regard to the former, may be compared to Dr. Thurnam, for whose laborious researches he entertained the greatest respect. In regard to asylum construction, he favoured a departure from the orthodox views current among the old school of American alienists. In this and other respects he was a man of independent opinion. In religion he was broad and Catholic in his views, and a foe to theological intolerance. Ministers of all shades of belief officiated in turn at the Sunday services held in the asylum. His early training "guarded him," observes his friend, Mr. Sanborn, "from some vain controversies and some immoderate ambitions. He followed humbly and sacredly the inner light, with very little desire to set up his own enlightenment as the limit for all other men."

Dr. Earle was an honorary member of the Association, having been elected nearly half a century ago, namely, in 1844.

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#### JOSEPH DRAPER, M.D.

With deep regret we record the unlooked-for death of the greatly-esteemed medical superintendent of the Vermont Asylum, Brattleboro. His friends had hoped for many more years of service from this excellent man, whose earnest nature, strength of character, and kindness of disposition eminently qualified him for the post which he held. Pliny Earle died in the course of nature in ripe old age, but Dr. Draper long before the age which men count fit, for he was born in 1834, and therefore only 58. He came of a New England family, and was educated in the common schools, and subsequently academies in West Brattleboro', and Deerfield, Mass. He was 22 before he fully decided to qualify for the medical profession. He attended lectures in New York and Philadelphia, where he graduated in 1858. When practising at Greenfield, Mass., he met

with a case of insanity which excited his interest, and brought home to him the fact that he knew little or nothing of the disorder. He wrote for information to Dr. Rockwell, of the Vermont Asylum, and expressed a desire to study mental disorders practically. There was at that time no vacancy, but in October, 1859, he became the assistant medical officer, and remained there till 1865. Shortly after leaving he acted as an assistant surgeon in the military hospital at Brattleboro'. Subsequently he went to the Worcester Asylum in the capacity of assistant physician, and for one year acted as superintendent. Later on he was an assistant medical officer in the New Jersey Asylum, where he resided until the year 1873, when he was appointed superintendent of the Vermont Asylum. Here he found his true vocation, and those who visited him there could not fail to be struck with the admirable manner in which he conducted it. He took a warrantable pride in the improvements which were carried forward under his auspices, including the opening of the Hillside Park, the Summer Retreat, and the Cottage. It may be doubted whether any asylum grounds are more beautiful than these.

In 1881, the year of the International Medical Congress, he visited London, and impressed his English *confrères* with his sterling character. It is stated in an obituary notice that "the opportunity for observation and study in his specialty was improved to the utmost, and Dr. Draper came home filled with more zeal and enthusiasm than ever for the development and increased usefulness of the asylum. Believing always in every possible outdoor help and diversion as a main curative agency for the patients in his charge, almost his first act on returning home was to bring before the trustees a proposition for the establishment of a retreat separate from the main institution, such as he had found widely used by the best institutions in England and Scotland, where patients who were in a condition to be benefited by the change might find in summer relief from the home asylum life, just as well as people seek at this season a summer outing or a vacation. The idea was favourably received; the well-known 'Miles-place' was bought for this purpose, fitted up during the summer of 1882, and was first occupied as a summer retreat for a short time at the close of that season. The advanced step thus taken was an important one, and in this respect the Vermont Asylum led every institution for the insane in the United States. So satisfactory did its operation prove that five or six years later the estate now known as the Cottage was bought and fitted up for a similar retreat for the male patients, the summer retreat having been necessarily used for women alone."

Dr. Draper was a clear and practical writer. He wrote papers on "The Pathology of Insanity;" and on "Hysteria;" "Responsibility of the Insane in Asylums," as also on their responsibility outside asylums. His "Annals of the Vermont Asylum for the Insane" covered the history for the first half-century of the asylum, and appeared in 1887, and reflects great credit upon his ability as a writer.

From our personal knowledge of Dr. Draper we can speak in the strongest terms of our appreciation of and esteem for him, both as a man and as a superintendent, and fully realize the truth of the tribute paid to his memory in the words, "To have enjoyed for almost twenty years the confidence and the intimate friendship of a man thus broadly fashioned has been an inspiration, and its memory is now a benediction for which no emotion but of profound gratitude can be felt."

In the funeral address the minister stated—"He loved Brattleboro' with an ardent, growing love. He said to me, 'that notwithstanding all the associations and beauties of Europe, he would rather live there than any other place.' He was wide in his sympathies, and rejoiced in every improvement which added to the material and to the mental or moral advancement of the village and people he loved. . . . He was an earnest Unitarian, and he held his belief, not as an inherited legacy, but as a vital and personal conviction."



It is suggested that the asylum trustees should cause the erection of an enduring monument to his memory in the form of a tower on the pinnacle of the mountain-side opposite the village of Battleboro', which has been secured by the asylum. We hope that this idea, which he himself desired to be carried out in his lifetime, will be effected now that he has passed away.

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#### PROFESSOR VALDEMAR STEENBERG.

This well-known Danish alienist, the amiable and hospitable President of the Psychiatric Section at the International Congress in Copenhagen, 1884, died the 2nd of March. He was born in 1829, and had an extensive general medical education. As house-physician at the Communal Hospital in Copenhagen, he wrote his first essay on "Syphilitic Affection of the Brain" (1860). In this book, he, the first—as later on Heubner in Germany—pointed out the great importance of the arteriosclerotic changes of the cerebral vessels for the syphilitic encephalopathy. Later on the ætiology of the general paralysis of the insane attracted his highest interest, and he was one of the very first to become an almost fanatic champion for the nowadays so generally admitted theory of a syphilitic origin; and not only he himself defended this doctrine energetically, but he inspired several of his pupils (Jespersen, Rohmell, Jacobson\*) to take up the cudgels. So early as in 1863 he was appointed the medical superintendent of the large Danish Asylum, St. Hans, a place he filled to his death, viz., more than 30 years. In this long period he was always a faithful, never-weary partisan of modern liberal ideas relative to the treatment of lunatics, and he carried through a long series of enlargements and improvements of the asylum. His conduct towards his patients was almost ideal, and he was a thoroughly humane man, lenient and indulgent in his judgment, and benevolent towards all with whom he was connected. Rightly he was the object of a real worship on the part of the insane as well as the sane. His qualification for psychiatry and the development of the lunatic institutions in Denmark will never be forgotten.

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#### PROFESSOR MEYNERT, VIENNA.

It is with great regret that we announce the death of Dr. Theodore Meynert, the distinguished head of the Psychiatric Clinic in the University of Vienna, which took place unexpectedly at his country house at Klosterneuberg on May 31st, at the age of 59. He had been in bad health for a long time, and during the last months of his life had been unable to discharge the duties of his chair. The immediate cause of his death was pneumonia. Professor Meynert's researches on the anatomy of the brain and his writings on medico-psychological subjects had made his name familiar to alienists and neurologists throughout the world. He was born at Dresden in 1833, and educated at Vienna, where he took the degree of Doctor of Medicine in 1861. He was for several years demonstrator of anatomy under Hyrtl. He was appointed *Privat-docent* in 1865, and, turning his attention to the clinical study of insanity, soon won for himself a leading position in that department of medicine. Professor Meynert was President of the Psychiatric Association, Vice-President of the Vienna Medical Society, and a member of the Superior Sanitary Council of Austria. Only a few days before his death he had been elected a member of the Imperial Academy of Science of Vienna, and it was expected that he would have been chosen as Rector Magnificus of his university next year. In him the Vienna School loses one of its most conspicuous figures, and medical science one of its most zealous and most independent cultivators.—*British Medical Journal*, June 11, 1892.

\* See "Journal of Mental Science," April, 1892.

CANDIDATES WHO PASSED THE EXAMINATION FOR THE  
CERTIFICATE OF PROFICIENCY IN NURSING MAY, 1892.

*Derby Borough Asylum.*

MALES.

John Gutteridge.  
William Gutteridge.

FEMALES.

Rebecca Sutton.  
Eliza Woollatt.  
Louisa Asbury.  
Elizabeth Milne Withers.  
Elizabeth Macaulay.

*Haywards Heath Asylum.*

MALES.

John Backhouse.  
Albert George Wake.  
George Catchlove.  
Timothy Callaghan.  
James M. Le Patourel.  
Jasper H. Smith.  
Frederick Cook.

FEMALES.

Emma Ware.  
Kate White.  
Mary Alice Warner.  
Caroline M. Walton.  
Alice Ann Derham.

*Birmingham Asylum.*

MALES.

Henry Ambrose Hill.  
Peter Warburton.  
Harry E. Drew.

FEMALES.

*Wadsley Asylum, Sheffield.*

MALES.

Robert Barwell.  
Harry B. Ellis.  
Herbert Brooke.  
Thomas George Harrison.  
William Severns.  
James Dolan.  
Abraham F. L'Amie.  
Joseph Ashby Dixon.  
Arthur W. Redfern.  
Nelson Webster.  
John Moore.  
Albert W. Jones.  
Shaw John Davies.

FEMALES.

Flora F. Drabble.  
Ellen Healey.  
Mary Madeley.  
Christiana Emmerson.  
Elizabeth Cullabine.  
Fanny Wheatley.  
Annie Marks.  
Lizzie Cousins.  
Elizabeth Fraser Scott.  
Eliza Robinson.

*West Riding Asylum, Wakefield.*

MALES.

William Reed.  
Eyra Frost.  
Richard Steele Robinson.  
James Arthur Hadfield.  
George Hobbs.  
Richard Howden.  
John Whipp.  
James Wright.  
Henry Wright.

FEMALES.

*Rubery Hill Asylum.*

MALES.  
Joseph Storer Noon.  
William Philipps.

FEMALES.  
Kate Cocks.  
Nellie Shields.  
Emily Worrall.  
Edith Cutler.  
Martha Sayers.  
Emily Taylor.  
Sarah Bishop.  
Emily Arundel Withers.

*Northumberland County Asylum.*

MALES.  
George Baker.  
Robert James D. Brown.  
Thomas Flanagan.  
William Philipps.

FEMALES.  
Frances Jane Richardson.  
Susannah Thompson Palmer.  
Elizabeth Crake.  
Melville Annie Armstrong.

*Holloway Sanatorium.*

MALES.  
A. Pratt.  
Henry James Lee.  
John McLaren.  
George Wright.

FEMALES.  
Ann Raw.  
Annie Cornaby.  
Annie Oliver.  
Jane Chapman.  
Francis Matheson.

*Stirling District Asylum.*

MALES.  
James Sim.  
John Lawson.  
William Fraser.

FEMALES.  
Kate Dunbar.  
Margaret Mulfeather.

*Kirklands Asylum, Bothwell.*

{MALES.  
Donald McMillan.  
John Campbell.  
Hugh McEwan.

FEMALES.  
Isabella Henderson.

*Crichton Royal Institution, Dumfries.*

{MALES.  
Joseph Ormston.  
Robert Cooper.  
John Campbell.  
Peter McArthur.

FEMALES.  
Isabella Grierson.  
Mary Johnston.  
Maggie Clarke.  
Jemima Riddock.  
Edith Thorburn.  
Jessie Mackay.  
Elsie Annie Leslie.  
Barbara Scott.  
Jane Williamson.  
Marian Cocker.  
Mary Dolan.  
Alice Noble.

*Roxburgh District Asylum, Melrose.*

MALES.  
David Anderson.  
Gilbert Millar.

FEMALES.  
Mary M. Reid.

*Gartnavel Asylum, Glasgow.*

## MALES.

John Nicoll.  
John Wallace.  
James Thornton.  
James Durward.  
Duncan Urquhart.

## FEMALES.

Helen Begg.  
Margaret Innes.  
Christina Robertson.  
Helen Sutherland.  
Jane Barr Gray.  
Margaret Stewart.  
Isabella Gillies.  
Harriett McIntyre.  
Margaret Hendrie.

*Fife and Kinross District Asylum.*

## MALES.

William A. Bremner.  
Allan Grant.  
James Eadie.  
James Nes.  
Alexander Soutar.  
George Lumsden.

## FEMALES.

Helen Burton.  
Elsie M. Hadden.  
Margaret Kirkcaldy.  
Amelia Kennedy.  
Sophia Ballantine.  
Agnes Taylor.  
Betsy Culbert.  
Eliza Honeyman.  
Jessie Bonthron.  
Lillias Ames.

*Dundee Royal Lunatic Asylum.*

## MALES.

Thomas Boyd.  
James Inches.  
Charles Chalmers.

## FEMALES.

Jane S. Alison.  
Joan M. Finlayson.  
Jane McGarrock.  
Sarah McGarrock.  
Jessie Shand.

## MEDICO-PSYCHOLOGICAL ASSOCIATION.

At a Special Meeting, held at Bethlem Hospital on Thursday, June 23rd, 1892, it was resolved—

- 1st. "That there be a Committee of Education temporarily appointed, consisting of Members of the Association who are teachers of Psychological Medicine in the Universities or Medical Schools in England."
- 2nd. "That the Committee be instructed to take steps to be represented before the Commission on the New (Gresham) University."
- 3rd. "That this Meeting recommends to the Annual Meeting that a Board of Education be appointed to consider all questions affecting Medico-Psychological teaching, the Board to consist of all Members of the Association who are lecturers and teachers of Psychological Medicine in the Universities or Medical Schools of the United Kingdom."



## SATANIC POSSESSION AND INSANITY.

The following letter from the sister of a patient in the Royal Edinburgh Asylum, Morningside, addressed to Dr. Elkins, shows that the belief in demoniacal possession—once universal—still retains its hold in some quarters:—

DEAR SIR,—Thanks for your minute description of my afflicted brother's condition. He is naturally too quiet; but, sir, I would like you to believe and understand that he is possessed by an evil spirit, and by God's blessing if you would try the experiment of taking great believers of all Christian denominations to his bed, notwithstanding the raving, he would soon get better. It is not he that speaks or acts, it is the evil spirit, though loathing in such cases is natural.

M. R.

EXAMINATION FOR THE CERTIFICATE OF PROFICIENCY IN  
PSYCHOLOGICAL MEDICINE.

The next examination for England will be held at Bethlem Hospital, July 7th, 1892, at 11 a.m. The examination for the Gaskell Prize will be held on the following day, July 8th. For particulars apply to the Hon. Secretary, Fletcher Beach, M.D., Darenth Asylum, Dartford, Kent.

## CONGRESS OF EXPERIMENTAL PSYCHOLOGY.

This Congress will meet at University College, Aug. 1, 1892. For particulars, apply to JAMES SULLY, Esq., East Heath Road, Hampstead. Drs. PERCY SMITH, OUTTERSON WOOD, and MERCIER have been appointed delegates from the Association.

*Appointments.*

ANDERSON, A. W., M.B., C.M.Edin., Assistant Medical Officer to the Fife and Kinross District Asylum, Cupar.

BOWES, W. H., M.D., B.S.Lond., F.R.C.S.Eng., Assistant Medical Officer to the Plymouth Borough Asylum, Ivybridge, Devon.

DUFFUS, G., M.B., C.M.Aberd., Medical Superintendent of Brook Villa Asylum, West Derby, Liverpool.

FITZGERALD, G. C., B.A., M.B., B.C.Cantab., Medical Superintendent of the Kent County Asylum, Chartham.

HUNTER, Dr., junr., Assistant Medical Officer to the Royal Asylum, Montrose.

RUTTLEDGE, VICTOR J., M.B.Beh., B.A.O.Univ. Dublin, Assistant Medical Officer to the District Lunatic Asylum, Londonderry.

SIMPSON, ALEX., M.A., M.B., C.M.Aberd., Second Assistant Medical Officer to the Lancashire County Asylum, Whittingham, Preston.

SHORTT, W. R., M.B., B.S., L.R.C.P.Lond. and M.R.C.S.Eng., Third Assistant Medical Officer to the Durham County Asylum.

TAWFS, G. W. H., M.B., C.M.Aberd., Junior Assistant Medical Officer to the Counties Asylum, Carlisle.

WATSON, W. R. KEMLO, M.A., M.B., C.M.Glasgow, Assistant Medical Officer to the Govan Parochial Asylum.

(Concluded from April, 1892.)

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# A DICTIONARY OF PSYCHOLOGICAL MEDICINE

GIVING THE DEFINITION, ETYMOLOGY AND SYNONYMS OF THE  
TERMS USED IN MEDICAL PSYCHOLOGY

WITH THE

*SYMPTOMS, TREATMENT, AND PATHOLOGY OF INSANITY*

AND THE

*Law of Lunacy in Great Britain and Ireland.*

EDITED BY

D. HACK TUKE, M.D., LL.D.,

Examiner in Mental Physiology in the University of London; Lecturer on Psychological Medicine at the Charing Cross Hospital Medical School; co-Editor of "The Journal of Mental Science."

ASSISTED BY ONE HUNDRED AND TWENTY-SEVEN CONTRIBUTORS.

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This Work, the first of the kind which has been attempted, aims at providing information, more or less systematic, in regard to the Definition, Etymology and Synonyms of the Terms used in Medical Psychology, with the Symptoms, Pathology and Treatment of the recognized Forms of Mental Disorder, together with an abstract of the Law of Lunacy in Great Britain and Ireland.

A large number of short Definitions of words have been introduced.

Articles of greater length treat of the most important subjects which fall under the head of Psychological Medicine.

The Philosophy of Mind is expounded in a separate Introductory Article, and is not lost sight of in the Shorter Definitions and other Articles; but it is to be borne in mind that the fundamental aim of the Dictionary is directed to Morbid Psychology, and not to Mental Science in its ordinary restricted sense.

An account is given of the methods of Psycho-Physical Research which have been introduced in recent times into Psychological Laboratories established in various Universities in Europe and in the United States; also of the results which have been reached in regard to the Reaction-time of Mental Phenomena.

The History of the Insane, and the reforms undertaken to ameliorate their condition in various countries of the world, have been fully given.

An important feature of the Dictionary is the introduction of Bibliographical References in connection with the most important subjects treated of in the Articles; and, in addition to these, a copious Bibliography of English works bearing upon Psychological Medicine will be found at the close of the Work.

Illustrations of the various types of Insanity are given, and in addition, Engravings intended to facilitate the understanding of other subjects described in the Dictionary.

[Continued on next page.]

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